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**YOUR FOOD SERVICE - A GUIDE FOR THE FOOD SERVICE MANAGER
IN SMALL HOSPITALS AND INSTITUTIONS**

By

Myrtle B. Van Horne

A PROBLEM:

**Submitted to the Dean of the College of Home Economics of
Michigan State University of Agriculture and Applied Science
in Partial Fulfillment of Requirements for Degree of**

MASTER OF SCIENCE

MAJOR SUBJECT: INSTITUTION ADMINISTRATION

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INTRODUCTION

The serving of nourishing, palatable foods to patients is one of the major responsibilities of any hospital and is, in addition, the best possible means of creating good public relations. Food service includes many functions: planning adequate menus, purchasing of food materials, the preparation and serving of the finished product. The end result is dependent on the physical arrangement of and equipment for food service, number and type of personnel, and lastly, but far from least important, the skill, intelligence, and interest of the manager or supervisor of the food service.

The demand for qualified dietitians far exceeds the number of professionally trained individuals. We are told that about half of all the hospitals in the United States, including those of limited bed capacity, must depend on others for the operation of the kitchen as well as for managing the nutritional aspects in the diet of hospital patients.

This handbook has been written to assist in the continued education in the realm of foods and nutrition for able persons who do not have formal training but who have accepted the responsibilities of food service in small hospitals.

An attempt has been made to include the information which seemed most useful. Newer methods in cookery have been included as well as practical information on menu planning, food purchasing, improved practices in sanitation and safety, equipment and layout, and important factors for improving food service to patients. Up-to-date information on nutrition and underlying principles in the modification of the normal diet to meet the needs of patients requiring special diets have been listed.

The limiting factors are fully recognized both in the material presented and the manner in which it is written. It is further recognized that many of the procedures

presented are dependent upon and must be adapted to the needs of a specific institution. The purpose of this booklet is to restate, illustrate, streamline, and activate basic information on food service procedures.

"Science", said the French philosopher, Valery, "is a collection of recipes." Perhaps that is what this handbook is, a collection of time and knowledge-tested recipes to give to the food service supervisor new inspiration and a desire to apply them.

If the contents of this booklet make the work of the dietary department easier and more efficient and point the way to improved dietary management and ultimately to the intelligent, kindly care of the patient, its purpose will be fulfilled.

Grateful appreciation is expressed to all who have helped to make this handbook possible.

ACKNOWLEDGEMENTS

Many people have had a part directly or indirectly in the making of this manuscript. In addition to the reference material mentioned, much help and encouragement has been obtained in conversations and conferences with friends and co-workers, giving liberally of their knowledge. My friend, Margaret Gillam, was kind enough to read through a large part of the manuscript and acknowledgement is given to her for valuable suggestions.

Grateful appreciation is expressed to food service personnel in some small hospitals with whom the writer has worked, for their willingness to use certain sections on a "trial basis" and for their helpful suggestions concerning other parts of the material.

Special thanks are due Pearl J. Aldrich, Ph.D., for her assistance, ideas, and guidance throughout the preparation of the material.

Grateful appreciation is expressed to Miss Pearl Turner for the art work and sketches; and to Mrs. Nell Dunavant for her diligent work in typing, checking and proof reading of the material.

The work of tying the material together in fairly logical sequence for quick and easy reading must be credited solely to the writer.

Chapter I

EVERYDAY NUTRITION

Nutrition is concerned with food, the substances in food, and their relation to health and disease. Though present-day knowledge of nutrition is the result of laboratory studies of this last century, the importance of food in health dates back to the beginning of life itself. As early as 400 B.C., Hippocrates, the "Father of Medicine", taught the importance of food in health, and considered "good diet" one of the first principles in medical treatment.

Scientists are finding through research studies what substances in food are essential, how they work in the body, and how much of each substance is required daily for good health.



These food substances are called "nutrients". Thus far proteins, vitamins, carbohydrates, fats and certain minerals have been found to be necessary to good health. Present and future studies will give us more helpful information about the effect of specific nutrients on well-being.

Each nutrient has a special function in the body, but one single nutrient is no more important than another. It is only when these nutrients work together "as a team" that the body gets the most out of food. It would be a simple task for the menu planner to arrange an adequate diet if one or two foods could supply all of the essential nutrients. But there is no "perfect" or complete food.

Most foods do provide more than one kind of nutrient. Although one food may be recognized as an outstanding source of protein, it may also contain important amounts of several other nutrients.

The essential food nutrients are found scattered throughout the animal and vegetable kingdom. If you use a wide variety of foods in your dietary planning, you are fairly certain of providing an adequate diet.

The process by which the nutrients are used in the body is called "metabolism", a Greek word which means to change or exchange. Food nutrients are actually changed by digestion and feed all the cells of the body, producing heat and energy required and supplying materials for growth and repair of tissue.

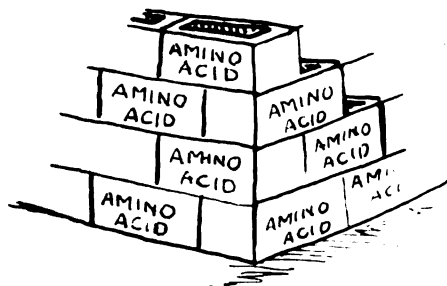
Nutrients can be weighed and measured in grams, ounces, and pounds. A calorie is a unit of measure used to express the energy or heat value of food. Practically all food has a rating on this calorie "measuring stick". Carbohydrates and proteins yield 4 calories for every gram. Fats yield 9 calories for every gram.

Because food is so plentiful in America, it is very easy to obtain an abundance of calories. But counting calories is not enough. To be used to best advantage, calories need to be "in good company". To use an extreme example, it would be quite possible to provide adequate calories with a diet of sugar and fat. Yet a person on such a diet would, in time, literally starve to death for want of essential nutrients furnished by foods containing protein, vitamins, and minerals.

WHAT FOOD DOES FOR THE BODY

Food supplies three important needs: (1) provides materials essential to growth and maintenance of the body, (2) keeps the various parts of the body in good condition, and (3) gives the energy for work or activity.

PROTEIN - for building and repair.



Protein foods feed all tissues, muscle, blood, bone, skin and all essential parts of the body. No one can live without proteins. No food is pure, one hundred percent protein. In the progress of the science of nutrition, proteins have been found to be like giant molecules or blocks, constructed of simple

substances called "amino acids". There are twenty-three amino acids, ten of which are indispensable to life. Proteins in the diet may come from animal or vegetable foods, each having different amino acids. The foods of highest protein value come from animal origin. Because protein foods contain different amino acids, it is necessary to plan several protein foods in meals to get the correct balance. Meals in which bread or cereals are served with meat, milk, vegetables, or egg dishes will provide adequate amounts of all the amino acids known to be essential.

Protein foods are necessary in the diet every day. A varied diet including selected foods provides adequate protein for the AVERAGE person. As children grow from babies to adults, their protein needs increase. Their bodies demand more protein for growth and the building of body tissue. Pregnant women, nursing mothers, and patients convalescing from illness need large amounts of protein foods to build new tissue.

Important food sources of protein are:

Milk, eggs, meat, cheese, fish, poultry

Dried peas and beans

Enriched, restored, or whole grain bread, flour, and cereals

Peanuts and peanut butter

MINERALS - for body structure and body regulation.



Minerals are as necessary to bone and teeth structure, and to hold parts of the body together, as brick and mortar are to the framework of a building. Minerals also help to regulate many body processes such as the proper beating of the heart and the proper functioning of the muscles and nerves of the body.

Minerals are sometimes called "trace elements" because of the small quantities needed. However small the need, the lack of some minerals means the difference between good health and a weak, sickly body.

According to present knowledge of nutrition, about 13 minerals are essential for life and health. Most of these are widely distributed in natural foods and are furnished in sufficient amounts in well planned meals. However, three minerals, namely, calcium, iron, and iodine, are found in very small amounts in certain foods, and good planning is need to include these minerals in the daily diet.

CALCIUM is needed for building good bones and teeth. It is also necessary in keeping the heart, muscles, and nerves working smoothly and assists in blood clotting after injuries. Important food sources are:

Milk and milk products

Cheese

Mustard greens, turnip greens

Broccoli, collards

Seafoods

IRON helps to make good red blood! Iron, with the help of the mineral, copper, and protein, forms hemoglobin in the red blood cells. Hemoglobin carries oxygen to all body cells. The oxygen makes food materials usable by "burning" them. A shortage of iron in the daily diet may result in

a condition known as nutritional anemia. Important food sources of iron are:

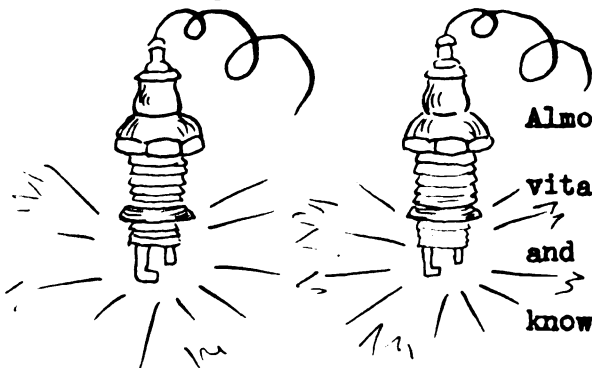
Liver	Enriched, restored or whole grain
Lean beef, pork and lamb	flours and cereals
Dried beans	Leafy green vegetables
Eggs	Shellfish
Dried fruits	

IODINE is necessary for proper functioning of the thyroid gland, which regulates the rate at which the body expends energy. When too little iodine is furnished to the body, the thyroid gland may become enlarged, a condition known as "simple goiter". Sea waters are high in iodine content and foods grown in the ocean or in soils near sea coasts contain large amounts of this mineral. The soil and water of inland regions, such as the Great Lakes region, are deficient in iodine. These areas are often referred to as the "goiter belt". Important food sources are:

Salmon	Shell fish
Saltwater fish	Sea plants
Tuna	Iodized salt

When you buy salt, read the label and be sure it is marked "iodized".

VITAMINS - for protection and growth.



Almost everyone is familiar with the word vitamin from drug store displays and newspaper and magazine advertising. It is important to know that vitamins are now believed to be essential nutrients and they are widely distributed in foods.

Vitamins in food might be called "spark plugs" because they help the body to make better use of other nutrients in food.

When vitamins were discovered, less than half a century ago, they were given letters of the alphabet for identification, as A, B, C, D. Now, most vitamins have been named for their chemical formula - such as thiamine (B₁), ascorbic acid (C), and riboflavin (B₂). Nearly 20 vitamins are now known and believed to be essential for human well-being. A few more vitamins are known to be important to chickens, fish, and insects, but not to people. Other vitamins have been discovered but their importance to human nutrition or the amount needed is not yet known. More vitamin discoveries will, no doubt, be made in the future.

Because most vitamins are not stored in the body for future use, it is important to plan foods which are rich in vitamins in the meals for each day. It is also important to watch carefully the preparation of foods because some vitamins can easily be destroyed by improper cooking.

The following vitamins are of practical importance in meal planning:

VITAMIN A is essential to the growth of children and to the general good health of adults. It helps to build up resistance to disease. Vitamin A prevents night blindness. Unlike a number of other vitamins, limited quantities of it can be stored in the liver. Important food sources of Vitamin A are:

Liver	Yellow vegetables
Sweet potatoes	Apricots and peaches
Green leafy vegetables	Egg yolk
Cantaloupe	Tomatoes
Milk and cheese	Butter and fortified margarine

THIAMINE or Vitamin B₁ is essential for growth, healthy nerves, and good appetite. It helps "spark" the release of energy from food. "Enriched" bread, flour, and cereal have added thiamine to "enrich" them. Important food sources of thiamine are:

Lean pork, beef, lamb	Poultry, fish
Liver	Milk
Dry beans, peas, nuts	Eggs
Enriched, restored, or whole grain, cereals, and flours	

RIBOFLAVIN or Vitamin B₂ helps to maintain vigor and vitality. It promotes growth in children. Riboflavin "sparks" the body's use of protein. Like B₁, it is also necessary to release energy from the food eaten. It is necessary for good vision, and helps the eyes to adapt to light. Important food sources are:

Milk, milk products	Eggs
Liver	Green leafy vegetables
Lean pork, veal, lamb and beef	Enriched, restored, or whole grain,
Fish	cereals, and flour

ASCORBIC ACID was first known as Vitamin C, or the anti-scorbutic vitamin. It is one of the "busiest" vitamins and has many different and important jobs to do. Ascorbic acid serves as a cementing substance to hold body cells together. It "sparks" the body to use iron in food and keeps the blood and blood vessels in good condition. Ascorbic acid increases the body's resistance to certain infections. In children, it aids growth. Important food sources of ascorbic acid are:

Oranges, lemons, grapefruit	Cabbage (raw)
Strawberries	Turnip greens, collards
Tomatoes	Potatoes, Irish and sweet

Cantaloupe

Green pepper

Broccoli

VITAMIN D is sometimes called the "sunshine" vitamin because it is produced in the skin by the ultraviolet rays of the sun. Vitamin D "sparks" the use of calcium and phosphorus in making strong bones and teeth. Nursing and expectant mothers need vitamin D to protect their own teeth and bone structure. With Vitamin D milk so plentiful today, deficiency of this vitamin can be avoided. Physicians often recommend a dietary supplement of Vitamin D for infants. Important food sources of Vitamin D are:

Cod and other fish liver oils

Vitamin D milk

CARBOHYDRATE FOODS are called fuel foods because they supply the body with energy and heat for work and activities. They are also carriers of other nutrients such as proteins, minerals, and vitamins. If fuel foods are eaten in excess of the body's needs, the balance is reserved in the body as layers of fat. A person who sits or is in bed all day does not need as many fuel foods as the person who works at strenuous labor. During childhood abundant energy foods are necessary for physical activity and for developing growing bodies. Carbohydrates are also called sugars and starches. Outstanding food sources of carbohydrates are:

Sugar, Wheat, Corn, Rice, and other grains.

Potatoes, Dried Vegetables and Fruits, Syrup and Honey.

FATS in moderation are necessary for the body. Fatty tissues serve as "support" for vital organs, and a thin layer of fat under the skin helps to conserve body heat. Certain fats are important, too, as a source of vitamins. Important food sources of fat are:

Butter and margarine

Cream

Bacon

Nuts

Lard and other solid
shortenings
Fatty fish

Chocolate
Vegetable oils
Fatty sections of beef, pork, and lamb

HOW MUCH FOOD IS NEEDED

In the preceding discussion of what food does for the body, certain foods are mentioned frequently as a source of many of the essential nutrients. As a practical guide to follow in planning daily meals, these foods have been grouped into 7 Basic Groups. When some foods from each group are planned each day in the suggested amounts, the necessary protein, minerals, vitamins, carbohydrates, and fats are furnished to the body of the person in good health.

During illness, the body usually requires the same nutrients it required when functioning normally in the same or greater amounts. The "special" diet, therefore, becomes a modification of the normal diet. Often the same foods are used, but they may differ in consistency, flavor, or quantity.

The role of foods in health calls for "nutrition-wise" planning, thoughtful buying, and careful preparing and serving of a variety of food. In many cases it means further use of ideas and knowledge already familiar to you.

GUIDE FOR THE NORMAL DIET

The normal diet supplies all the essentials required for good nutrition. It is the basis for all diet therapy.

The same kind of foods are generally used in the normal diet for adults and children. The chief difference is in the amounts or in the size of servings.

NORMAL DIET

<u>Food</u>	<u>Daily Amounts</u>	<u>Foods to Include</u>
Milk	1 - 1½ pints (adults) 3 - 4 cups (children)	Fresh, evaporated or dry; plain or in cooking.*
Vegetables	2 servings	One should be green or yellow. Serve raw ones frequently.
Potato	1 or more servings	Serve white or sweet potato.
Fruit	2 servings	One should be citrus or tomato or some other good source of vitamin C. Serve dried fruits, too.
Meat, fish, poultry	3 - 4 oz. (edible portion)	Beef, pork, lamb, veal, chicken, turkey, fish, etc. Serve liver often.
Meat alternates: cheese, legumes, nuts	1 oz.	Cheddar or cottage cheese, dried peas and beans; peanut butter.
Eggs	1	Plain or in cooking.
Bread and cereal	3 or 4 servings	Whole grain or enriched.
Butter or margarine with added vitamin A	2 tablespoons	Use some at each meal.

Additional servings of these foods may be used if desired. Desserts, cream, jellies, salad dressings, and gravies may be included to satisfy caloric requirements.

* Milk is still milk, whether "eaten" or taken as a beverage.

SAMPLE MENU FOR NORMAL DIET

<u>Breakfast</u>	<u>Dinner</u>	<u>Supper or Lunch</u>
Fruit or juice	Meat, poultry or fish	Containing meat, fish, egg,
Cereal with milk	Potato or substitute	cheese, dried beans
Egg	Vegetable	Vegetable or salad
Bread or toast	Bread with butter or	Bread with butter or
Butter or margarine	margarine	margarine
Beverage: tea, coffee, or milk	Salad: fruit or vegetable	Dessert or fruit
	Dessert	Beverage: tea, coffee, or milk
	Beverage: tea, coffee, or milk	

GUIDE FOR PLANNING DIETS

AMOUNTS FOR EACH DAY

FOODS TO INCLUDE	AMOUNTS FOR EACH DAY			AMOUNTS FOR EACH DAY			AMOUNT FOR EACH DAY				
	NORMAL (ADULT)	PREGNANCY	SOFT	BLAND	HIGH VITAMIN, HIGH PROTEIN, HIGH CALORIE	LOW FAT	LOW RESIDUE	FULL LIQUID	SODIUM RESTRICTED (400-500 mg)	RESTRICTED CALORIES 1,000 Cal.	RESTRICTED CALORIES 1,500 Cal.
MILK - whole, skim, buttermilk, fresh, evaporated, or dry milk. May be used as beverage or in cooking.	<u>1 - 1½ pints</u>	<u>1 quart</u> Use pasteurized milk with Vitamin D added.	<u>1 - 1½ pints</u> Use additional in creamed soups with allowed vegetables and in simple desserts.	<u>1 - 1½ quarts</u> Use as beverage or milk drinks and creamed soups.	<u>1 quart</u>	<u>1 - 1½ pints</u> Skim milk, nonfat dry milk, buttermilk made from skim milk.	<u>1 pint*</u> May be used in cooking if better tolerated than when taken as beverage.	<u>1-1½ quarts</u> Use as milk or milk drinks, creamed soups, rennet dessert.	<u>1 pint only</u>	<u>1½ pints</u> Skim milk, buttermilk, nonfat dry milk.	<u>1 quart</u> Skim milk, buttermilk, nonfat dry milk.
VEGETABLES - One should be leafy, green or yellow, Use raw ones frequently.	<u>2 or more servings</u>	<u>2 or more servings</u> Use raw cabbage and salad greens frequently.	<u>2 - servings</u> Use cooked tender asparagus tips, carrots, beets, peas, spinach, squash, young string beans. Vegetable juices.	<u>2 servings</u> Strained asparagus, carrots, peas, spinach, string beans, squash. May be used in creamed soups.	<u>2 servings</u> Additional servings may be included as they contribute valuable minerals and vitamins.	<u>2 or more servings</u> Avoid: cabbage, onions, peppers, radishes, broccoli, rutabaga, cauliflower if not tolerated; raw vegetables, if they cause discomfort.	<u>2 servings</u> Strained. May be used in creamed soups if desired.	<u>2 servings</u> Strained vegetables in creamed soups only. Vegetable juices.	<u>2 servings</u> Use fresh, canned, or frozen vegetables without salt. Avoid: beets & beet greens, celery, kale, spinach, frozen peas and lima beans.	<u>2 servings</u>	<u>2 servings</u>
POTATO AND POTATO ALTERNATES - White or sweet potatoes, macaroni, spaghetti, noodles or rice.	<u>1 serving</u>	<u>1 serving</u> Bake in skins to preserve vitamins and minerals	<u>1 serving</u> White potatoes - mashed, creamed, escalloped, au gratin; macaroni, spaghetti, noodles, rice.	<u>1 serving</u> Same as soft diet.	<u>1 or more servings</u> Additional servings will increase calories especially if butter, margarine or cream are added.	<u>1 serving</u> Baked, boiled, or mashed white or sweet potato. If fat is used on these it must be taken from allowance.	<u>2 servings</u> Same as soft.		<u>1 or more servings</u>		
FRUIT - Include one citrus fruit or other food high in vitamin C. Use dried fruits occasionally.	<u>2 or more servings</u>	<u>2 servings</u> Plan 2 daily servings of citrus fruit or tomato.	<u>2 servings</u> Cooked or canned, apple-sauce, pears, peaches, cherries, apricots, orange and grapefruit sections, ripe banana. Include 1 serving citrus.	<u>2 servings</u> Include 1 serving of citrus juice. Same as soft diet.	<u>2 servings, plus 2 servings of citrus</u> Use of sweetened fruit and juices will increase calories.	<u>2 or more servings</u> Canned, frozen or dried fresh, if tolerated. Avoid: fresh melons, avocado, olives.	<u>2 servings</u> Same as soft diet.	<u>3 or 4 servings</u> Citrus and other fruit juices	<u>2 or more servings</u> Avoid: dried figs and raisins, any canned fruit containing sodium preservative.	<u>3 servings</u> Include one serving of citrus fruit or other food high in vitamin C.	<u>3 servings</u>
MEAT, FISH, POULTRY and MEAT ALTERNATES, as cheese-cheddar and cottage, legumes, nuts.	<u>2 servings</u>	<u>2 servings</u> Use liver often.	<u>2 servings</u> Very tender beef, veal, lamb, fish, fowl, liver. Avoid: pork, ham, spiced or fried meats and gravies.	<u>2 servings</u> Same as soft diet.	<u>2 servings (6 oz. daily)</u> Liver once a week.	<u>2 servings</u> Use only lean meats, fish and poultry, dry cottage cheese. Avoid: pork, highly seasoned meats and gravies, nuts.	<u>2 servings</u> Same as soft diet.		<u>2 servings (only 4 oz. daily)</u> Avoid: smoked and highly seasoned meat, canned fish, cheddar cheese, peanut butter.	<u>2 servings</u> Very lean	<u>2 servings (5 oz. daily)</u>
EGGS - prepared anyway or in cooking	<u>1</u>	<u>1</u>	<u>1 daily</u> Cooked anyway, except fried.	<u>1 daily</u> Same as soft diet.	<u>1 or 2</u>	<u>1</u> (If tolerated)	<u>1 daily</u>	<u>1 or 2 daily</u> Use in eggnog or soft custards.	<u>1 only</u>	<u>1 daily</u>	<u>1 or 2 daily</u>
BREADS, CEREALS - Use whole grain or enriched.	<u>3 or 4 servings</u>	<u>3 or more servings</u>	<u>3 or more servings</u> Use enriched, refined cereals, strained oatmeal. Avoid: hot breads, muffins and biscuits.	<u>3 or more servings</u> Use only enriched white toast, melba toast, rusk, refined cereals, strained oatmeal. Avoid: hot breads.	<u>3 or more servings</u> Jam and jelly will increase calories.	<u>3 or more servings</u> Avoid: hot breads and rolls, doughnuts.	<u>3 or more servings</u> Enriched white bread, refined cereals, strained oatmeal.	<u>Cereal gruel only.</u>	<u>3 or more servings</u> Unsalted bread and cereals. Avoid: products baked with soda or baking powder.	<u>2 servings</u> One serving may be potato alternate.	<u>3 servings</u>
FATS - Use butter or margarine with added vitamin A.	<u>2 tablespoons</u>	<u>2 tablespoons</u>	<u>2 tablespoons</u>	<u>2 tablespoons</u>	<u>2 tablespoons or more.</u> Increase calories with bacon, salad dressing, cream	<u>1 tablespoon</u> Allow 1 teaspoon at each meal for bread or in cooking.	<u>1 tablespoon</u> Use only butter or fortified margarine or cream.		<u>2 tablespoons</u> Use unsalted butter and vegetable shortenings.	<u>1 tablespoon</u>	<u>1 tablespoon</u>
Additional foods and suggestions as required for modification of the normal diet.	Note: To meet calorie needs, additional servings of the above may be given or other foods may be added, as sweets, jam, jelly, salad dressing, etc.	LACTATION: Add ½ quart of milk making a total of 1½ quarts.	Desserts: puddings, custards, gelatin desserts, ice cream, sherbert. Soft diet for people without teeth includes any food that can be easily eaten.	Note: This diet is often given in 6 small meals. Avoid: commercial and broth soups, carbonated beverages. Use tea and coffee only if permitted by physician.	Note: Between meal nourishment of fruit juice and milk may be given. Protein supplements may be indicated by physician.		* Under certain circumstances, all milk may be excluded as indicated by physician.	Note: For clear liquid diet, use only clear broth or bouillon, tea, coffee, plain gelatin, carbonated beverages.	Note: For 200 mg., use sodium free milk. For 1,200 mg., use regular bread. Use no salt in food preparation.	Note: Part of the milk allowance may be taken as between meal or bedtime nourishment. This diet provides approximately 65 grams of protein.	Note: This diet provides approximately 85 grams of protein.

GUIDE FOR PLANNING DIETS

AMOUNTS FOR EACH DAY

GUIDE FOR PLANNING DIETS

AMOUNT FOR EACH DAY

DIABETIC DIETS

The daily diabetic diet should include the foods listed in the basic plan for the adequate diet to assure intake of essential nutrients. Each diet is prescribed by the physician according to the individual requirements, with the allowances of carbohydrate, protein, and fat specified.

Individual planning must be done with the patient in order to adjust the selection of foods to his likes and dislikes. The quantity of food depends upon the diet prescription, and it is very important that the patient consume his entire food allotment regularly.

The publication, "Meal Planning With Exchange Lists", prepared by the American Diabetes Association, the American Dietetic Association, and the Diabetes Branch of the U. S. Public Health Service, contains charts for calculating diabetic diets, food exchange lists and other material for use in planning diabetic diets. This material is widely used as a guide and simplifies the procedure of planning diabetic diets in hospitals. This material also helps to teach the patient and members of his family how to plan meals when he returns home. This is important because a diabetic must stay on a well controlled diet the rest of his life. "Meal Planning With Exchange Lists" may be obtained from the American Dietetic Association, 620 North Michigan Avenue, Chicago, Illinois.

Any therapeutic restriction may be applied to the diabetic diet, such as low sodium, soft or liquid.

Specially packed fruits without sugar are available, but they are expensive. Home canned fruits without sugar may be used.

FOOD FOR THE PRE-SCHOOL CHILD (3 to 6 years)

Nourishing food plays a major part in the growth and development of children. Meals for children should provide all of the essential foods for the day, and the amount will depend somewhat on how fast the child is growing. Children should be served a variety of foods to develop good eating habits for later life. Normally, children enjoy the foods with which they are most familiar just as adults do. They should be encouraged to taste new foods frequently, but new foods should be introduced one at a time and in small servings.

In planning meals for children, follow the basic daily food plan and fit the size serving to the appetite of the child.

By the time the child reaches the end of the second year, he requires foods to chew to help develop teeth and gums. Chopped carrot, celery and lettuce serve this purpose. Meat should be chopped or cut in bite size pieces. Fruits that are well ripened and peeled may be served. It is best to avoid fruits with seeds and extremely tough skins. Include simple desserts such as ice cream, cookies, plain cake and puddings. Gradually the foods served become the same as those for adults. Highly seasoned, rich foods and stimulating beverages should be avoided.

FOOD FOR THE OLDER CHILD (6 to 14 years)

Follow the basic pattern for the normal diet for older children. This will supply all essential foods. Encourage good eating habits and help the child to enjoy his food. Food should be well cooked and served simply and attractively. Avoid excessively rich foods. Stimulating beverages, such as coffee, tea and soft drinks should not replace milk. Soft drinks should be curtailed because of their high sugar content and lack of essential nutrients.

FOOD FOR THE OLDER PATIENT

Although food for the aged has recently been receiving much attention, studies have not yet supplied all the facts concerning actual needs. It is known, however, that as individuals become older, they are less active and perhaps their needs, expressed in amounts of food, are less. With reduced activity and lower caloric requirement, there is also less ability to absorb the important nutrients in the digestion of food.

Older people tend to have fixed food habits and frequently restrict their diets to fewer and fewer items. Processed foods, largely carbohydrate in content, form a large part of their diet because they are simple to prepare, easy to eat, and inexpensive.

Studies show that the older person needs as much protein as the normal adult and sufficient quantities of vitamins and minerals to maintain good health, prevent fatigue, and overcome lack of appetite.

In planning meals for older patients, it is best to follow the basic pattern for the normal diet, emphasizing the protein foods, milk, meat, and eggs, and including vegetables, fruits, and whole grain cereals. These important foods should be planned in three meals each day, and the size servings adjusted to the needs of the individual. Special attention should be given to making the foods attractive and appealing.

When chewing is difficult, change the preparation rather than the food itself. Many foods may be chopped into "bite size" pieces for ease in chewing. Bits of chicken, meat, fish, and vegetables combined in creamed or casserole dishes, are packed full of nourishment and are easy to eat when chewing is difficult.

SAMPLE MENU PLAN FOR OLDER PATIENT

Breakfast

Fruit or juice
Cereal or egg
Toast - butter
Beverage: tea,
coffee or milk

Dinner

Meat, fish, or poultry
Potato
Vegetable or salad
Bread - butter
Dessert
Beverage: tea, coffee,
or milk

Supper

Main dish with meat,
cheese or fish
Vegetable
Dessert or fruit
Bread - butter
Beverage

Bed-time snacks, as desired, may be served.

Pointers to keep in mind:

Mealtime should be a high point in the day. A variety of foods attractively served will stimulate the appetite.

Older people become set in their ways. Individual attention will make them happy.

Eating is very often "work" for them. Foods which can be easily handled encourage them to eat.

Kindly interest and persuasion will help them to accept the basic foods that are important to them.

Remember - the best diet in the world is of no benefit unless it is eaten!

Well planned meals, carefully cooked and attractively served, speed the patient's recovery. By serving your patients excellent food, you can create good will in the community and establish an enviable reputation for yourself and your staff.

Chapter II

THE ART OF MEAL PLANNING

Planning meals in a hospital or in other institutions is an important job. It's like planning meals for a big, happy family. The homemaker has to plan for toddlers, teen-agers, her hard working husband, and sometimes older members of the family. So do you need to plan for varied groups of people. The difference is that you have to plan for more people in each group, and some are sick. The normal, healthy people who work with you need to be considered, too. You want all of them to have the foods needed to maintain or to restore good health.

Your food must look good and taste good, too. You may need to stay within a planned budget as well. Remember, spending a lot of money does not always provide "good" food.

Planning good meals requires art and skill as well as knowledge of basic principles. As the food service manager or the cook, you have been selected for this important job because you have the necessary skill, practical experience, and interest in food.

SOMETHING OF EVERYTHING

You will find the important job of meal planning easier if you have a pattern such as the "Basic 7" food guide. Foods that do the same work have been grouped together. This guide will help you to make certain that you have included all the essential nutrients every day.

LEAFY, GREEN OR YELLOW VEGETABLES



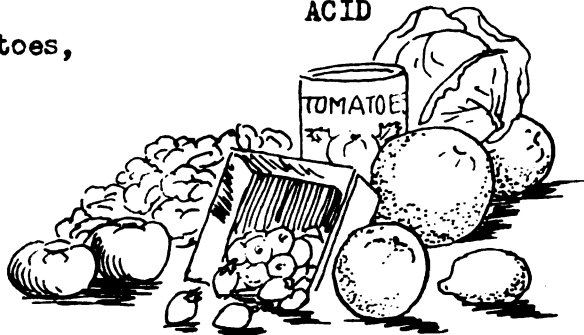
1 or more servings daily - use some raw frequently.

Spinach, kale, chard, beat and turnip greens, mustard greens, green cabbage, leaf lettuce, asparagus, string beans, broccoli, carrots, green pepper, peas, sweet potatoes, pumpkin, yellow corn, yellow turnips, winter squash.

1 or more servings daily.

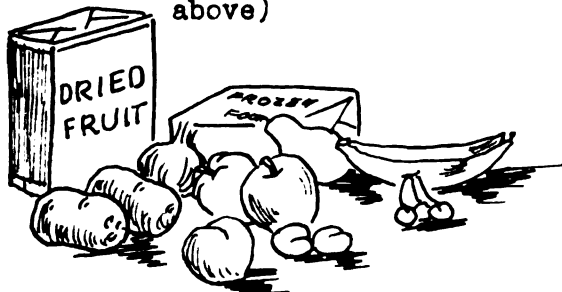
Oranges, lemons, grapefruit, tomatoes, raw cabbage, fresh crisp greens, strawberries, cantaloupe

FOODS RICH IN ASCORBIC ACID



In summer several generous servings of raw fruits and vegetables can be used in place of a single serving of citrus fruit.*

POTATO AND OTHER VEGETABLES AND FRUITS (in addition to the above)



2 or more servings daily.

Beets, cauliflower, onions, cucumbers, peaches, bananas, berries, white turnips.

Use dried fruits often

* Send for "Vitamin C Calendar for Michigan", available free from the Michigan Department of Health, Lansing, Michigan.

2 or more cups for adults daily.

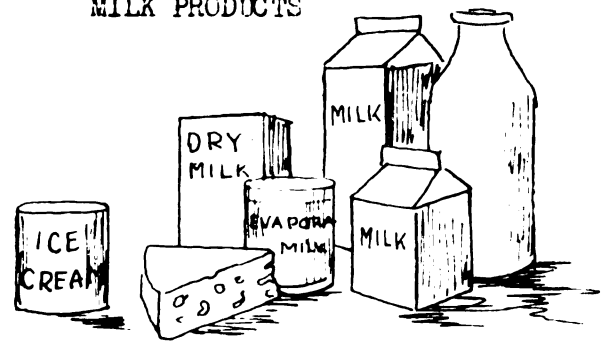
3 to 4 cups daily for children.

Use milk as a beverage or in cooking. Milk should be pasteurized and fortified with Vitamin D. Be sure to read labels.

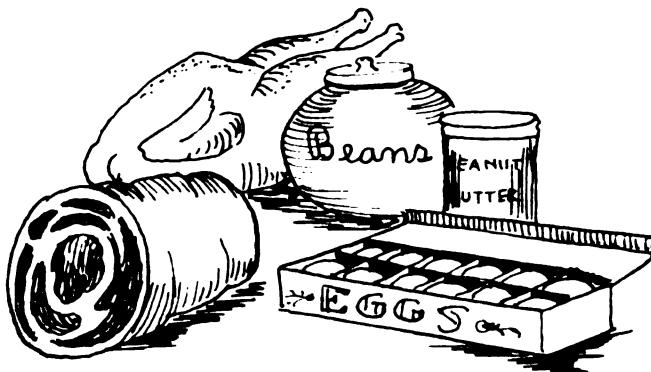
Fresh whole milk
Evaporated milk
Condensed milk
Nonfat or whole
dry milk

Ice cream
Skim milk
Buttermilk
Cheese, all kinds

MILK AND MILK PRODUCTS



MEAT, FISH, POULTRY EGGS



1 or more servings daily.

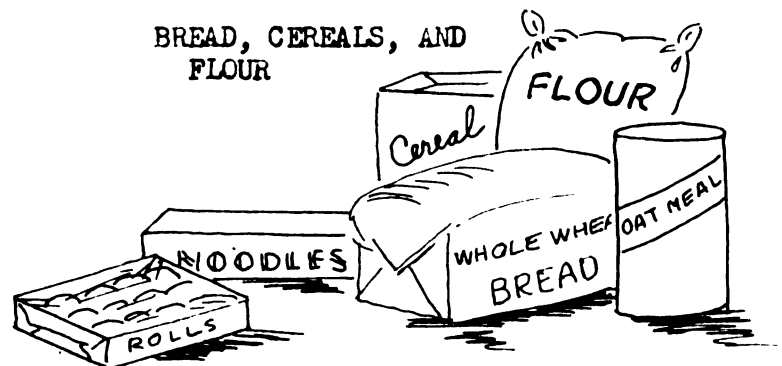
1 egg every day, if possible, or at least 3 weekly.

All cuts of beef, veal, lamb, pork (except bacon, which is mostly fat), poultry, fish, and shellfish. Liver and heart pay dividends in food value. Dried beans, peas, and nuts may be used sometimes in place of meat, fish, and eggs.

3 or more servings daily.

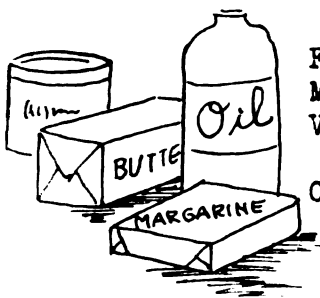
Choose enriched refined or whole grain breads and cereals. Many variety breads and rolls are not enriched. Read labels.

BREAD, CEREALS, AND FLOUR



3 or more servings daily.

Use some at each meal.



FATS - BUTTER AND
MARGARINE WITH ADDED
VITAMIN A.

COOKING FATS AND OILS

Other foods, such as sugars, sweets, baked goods, and other cereal foods may be included to make satisfying meals.

PLANNING WITH A PATTERN

If you consider meals for each day as a unit, you are sure to include all of the essential foods. Here is a sample meal plan for one day using the "Basic 7" pattern.

BREAKFAST

Fruit or fruit juice
Cereal with milk
Egg
Bread or toast
Butter or margarine
Beverage: Tea, coffee, or milk

Breakfast is the simplest meal to prepare. But, remember, it is important because 12 to 14 hours have passed since the last meal of the previous day.

DINNER

Meat, poultry, fish
Potato
Vegetable, green or yellow,
 raw or cooked
Bread or enriched rolls
Butter or margarine
Dessert or fruit
Beverage: Tea, coffee, or milk

The second meal of the day may be dinner or lunch. Many hospitals serve the main meal of the day at this time upon the advice of the doctors, and because there are more workers available for the preparation and serving of the larger meal at noon.

SUPPER

Main dish - meat, fish, poultry
 cheese, dried beans, or eggs
Vegetable - raw or cooked
Bread
Butter or margarine
Dessert or fruit
Beverage: Tea, coffee, or milk

When the last meal of the day is supper, it seems to be the hardest to plan. It's the last chance you have, however, to include all of the essential foods for the day.

SOME POINTERS ON MENU PLANNING

Planning three meals a day for 365 days a year is a real challenge to the menu planner. By good menu planning, you are able to serve meals that supply all the essential food elements. You must know how to conserve minerals and vitamins and how to make sure your meals have "appetite appeal". It is the food that's eaten that builds and maintains health.

Planning meals at least a week in advance will make the task easier and make the menus more interesting, too. This will safeguard you against falling into the rut of having "meat loaf every Monday, roast beef on Tuesdays, hash on Wednesdays".

Decide on the day on which you will plan meals. An office, if one is available, or a quiet corner in the kitchen would be a good place to plan. Keep reference materials and recipe file at the "menu-planning" center to make the task easier. Some managers and cooks like to keep a list of popular dishes as a reminder and to obtain variety.



Allow enough time to check the menus, make work plans, and prepare market orders. Remember, you can plan better meals when your appetite is good and you are not too tired.

Keep in mind the "Basic 7" pattern in developing your menus. Use a form having spaces for three meals a day for seven days. You will find working from a pattern easier than hit-and-miss planning. Here are some suggestions to follow to make planning meals simpler. Try using them in the order in which they are listed.

1. Plan the meat or protein-rich main dish for each meal for the entire week.
2. Plan the vegetables, including potatoes, that "go with" the meat or main dish. Use sweet potato for Irish potatoes occasionally.

3. Plan a salad which is suitable to the main dish. Fruit salad may be served sometimes in place of dessert.
4. Plan the bread. Serve hot breads occasionally for variety. Use whole grain or enriched flour or breads.
5. Plan the dessert. Most people welcome "light" foods served in combination with more substantial ones. For example, when the meal consists of meat, two vegetables and salad, a simple dessert is the best choice. A rich dessert is in order following a meal of soup and salad.
6. Plan soup or appetizer, if served.
7. Plan beverage.
8. Plan cereals. Consider whole grain and enriched prepared cereals occasionally for variety.
9. Plan breakfast fruits. Be sure to plan a citrus fruit if a good vitamin C food is not planned during that day.

Plan meals for each day keeping in mind the preceding and succeeding days to avoid serving some foods too often and to use supplies on hand promptly.

Make your meals distinctive. Let natural color and flavors work for you. Avoid colorless combinations. Include at least one colorful food in each meal for eye appeal. Always plan one dish with outstanding flavor, but avoid too many foods with pronounced flavors in the same meal. Brussel sprouts, onions, and rutabaga would not have much appeal all in one meal. Never repeat the same flavor in a meal nor the same food in consecutive meals.

Seek a contrast in texture by planning some crisp, firm foods with the soft ones. Use different sized pieces and shapes of foods in the same meal to add interest.

Most people prefer the simple foods to which they are accustomed. If you

wish to introduce a new food, try it out on a small group first, for acceptance. A "surprise dish" occasionally is more appreciated than a strange, new concoction daily. A perky garnish on a familiar food may be more desirable than an entirely new food. Use your imagination to "dress up" simple foods to provide a festive air for holidays and special occasions.

Plan meals that can be prepared in the time available, using workers' skills and time to best advantage. Consider the oven and range cooking space required by the foods in each menu. Do you have enough oven space, for example, to plan roast beef and apple pie in the same meal? Consider, too, the amount of hand preparation the foods planned in the meals require.

Few menu planners can ignore food costs. If at times, your food budget is curtailed and you must use less expensive foods, be sure those you select are "fair trades" in food value. Eggs and cheese, for example, may be substituted for meat when they are good buys. A meal which consists largely of protein foods as meat, cheese, and eggs is expensive. On the other hand, a meal composed chiefly of carbohydrates such as potatoes, macaroni, bread (the cheapest foodstuff in dollars and cents), is sure to be low in protein and other food elements. To stay within your food budget, make good use of seasonal foods in plentiful supply.

Naturally, the nearness to market influences menu planners in the choice of food for menus. If your hospital is in an isolated community where you have fewer deliveries of fresh fruit and vegetables, you will use more canned, frozen, and processed foods.

Plan meals that feature the foods most acceptable to patients and employees to prevent plate waste. Use standardized recipes and portions so that the right amount of food can be prepared each time.

Don't plan too many "rich" foods in one meal as they are slower to digest. For "eye appeal" keep the portions moderate in size. Allow second portions, if desired. Remember, you are planning meals for some who are in bed and less active.

Make up one basic menu, and modify it to meet the special needs of various patients. It is seldom necessary to plan completely separate meals for children and grown-ups. When rich desserts and highly seasoned foods are planned, however, it is best to substitute fruits and plain foods for younger children and sick people. Encourage suggestions for menu items from your workers, other employees, and patients, too. Everyone is interested in food!

Once the menus have been planned, follow up by checking the preparation, size servings, and service. Remember, good menu planning can be lost if wise buying, good food preparation, and service does not follow.

Check your menus again. Ask yourself these questions:

Do my meals fit the basic pattern? Is a food rich in vitamin C included each day?

Will the patients and employees look forward to their meals and really enjoy them?

Are the foods varied from day to day, and from week to week?

Are my meals appealing in appearance?

Do I have the assurance that the meals will be part of the patients' treatment to restore health?

Does any one day put an extra load on the cook?

Have I used the food dollar wisely?

CYCLE MENUS - A MODERN WAY TO PLAN MENUS

A set of carefully planned menus, rotated according to a definite pattern, is called a cycle menu system. With the increased capacity of hospitals and institutions today, there are more demands on the menu planner's time. Using a cycle menu is one way to "streamline" your menu planning and allow more time for over-all supervision. Plan cycle menus like this:

First, decide on the length of time for each period. A cycle menu can be planned for any length of time, from a few days to 4 or 5 weeks. However, it is best not to make the period so short that repeating entire menus is obvious or so long that many adjustments have to be made because of changes in availability of many foods. A two or three week period is suitable for most small hospitals.

If you select a two week period, you can repeat the menus four times in two months. Likewise, if you select a three week cycle, you can repeat them four times in a three month period. The two or three week cycle could coincide with the seasons, so that you may have a set of menus for Fall, Winter, Spring, and Summer. You may want to develop a special set of menus for the Holiday Season or for the Lenten Season in which you plan more meatless meals than usual.

Next, plan meals carefully for the period selected, using the pointers in good meal planning.

The menus given here suggest a seasonal pattern and could be used as a guide in setting up a cycle system. Fruits and vegetables vary with the seasons as indicated on the menus. Variety can be achieved even with rotating menus.

FALL - WINTER

FRUIT - 2 servings, 1 citrus
WHOLE GRAIN OR ENRICHED CEREALS -
3 or 4 servings
EGGS - 1
BUTTER - 2 or more tablespoons

BREAKFAST		DINNER		SUPPER		
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Orange juice Ready-to-eat cereal Soft cooked egg Toast - jam Beverage	Apple juice Raisins Sweet roll or toast Bacon Beverage	Orange juice Ready-to-eat cereal Scrambled egg Toast Beverage	Stewed prunes Ready-to-eat cereal French toast - syrup Beverage	Tomato juice Oatmeal Poached egg Toast - jam Beverage	Orange juice Ready-to-eat cereal Bacon Cinnamon rolls Beverage	Stewed apricot Ready-to-eat cereal Scrambled eggs diced bacon toast Beverage
Oven Fr. cubed steaks Baked stuffed potato Creamed celery & carrots Cabbage, pineapple salad Bread - butter gingerbread - whipped cream Beverage	Baked ham-raisin sauce Scalloped potato Baby green lima beans Sweet pickle slice Bread - butter Chocolate blanc mange Beverage	Meat loaf - chili or tomato sauce Whipped potato Carrots & peas Bread - butter or rolls Coconut custard pie Beverage	Braised liver Parsley creamed potato Whole kernel corn pudding Tossed greens salad Bread-butter Lemon Meringue pudding Beverage	Baked fish, or Beef-stew, vegetables Buttered wax beans Cole slaw Bread - butter Date cake-orange icing Beverage	Pork chops-apple sauce Baked sweet potato French style green beans Enriched rolls - butter Steamed cherry pudding with sauce Beverage	Roast Turkey dressing and gravy Whipped potatoes Buttered Peas Celery hearts olives Butter crisp Pumpkin pie Beverage
Cream of spinach soup Chop suey - rice Buttered wax beans Molded fruit salad Bread - butter Oatmeal cookie Beverage	Beef bouillon Spanish rice Broccoli Stuffed peach salad Bread - butter Cup cake Beverage	Cream of vegetable soup Baked corned beef hash-chili sauce Waldorf salad Bran muffins Marble cake - chocolate icing Beverage	Grapefruit juice Ham croquettes Pineapple slice Buttered chopped spinach with egg garnish Carrot sticks Fruit jello Beverage	Cream of celery soup Salmon soufflé - tomato sauce Molded orange and grapefruit salad Baked rice pudding - raisins Beverage	Beef Bouillon Hamburger, grilled on bun Pickle relish Hot potato salad Bread - butter Bartlett pear - chocolate chip cookie Beverage	Cream of chicken soup Sausage cakes Baked Hubbard squash Apple muffin butter Stuffed prune salad Orange sherbet Beverage

BASIC LIST FOR THE DAY

Week of _____
SPRING - SUMMER

MILK - 1 pint for adults
 MEAT, FISH, POULTRY - 1 or 2 servings
 POTATO - 1 or 2 servings
 VEGETABLE (other than potato) - 2 servings
 FRUIT - 2 servings, 1 citrus
 WHOLE GRAIN OR ENRICHED CEREALS - BREAD
 3 or 4 servings
 EGGS - 1
 BUTTER - 2 or more tablespoons

BREAKFAST		DINNER		SUPPER		
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Orange juice Choice of cereal Fried eggs Toast - jam Beverage	Grapefruit juice Choice of cereal Little sausages Muffins Beverage	Half canteloupe Choice of cereal Poached egg Toast Beverage	Fresh grapefruit Oatmeal French toast - syrup Beverage	Orange juice Choice of cereal Scrambled eggs Toast - jam Beverage	Tomato juice Choice of cereal Bacon Raisin bread toast Beverage	Half canteloupe Choice of cereal Scrambled eggs Toast Beverage
Pot roast of beef Whipped potato Eggplant creole Shredded lettuce salad-dressing Bread - butter	Breaded veal chop Parsley buttered potato Corn on the cob Relishes Enriched rolls - butter Fresh blueberry pie Beverage	Ham and asparagus roll - cheese sauce Buttered rice Sliced tomatoes on lettuce leaf Bread - butter Baked lemon sponge pudding Beverage	Swiss steak Baked potato Cauliflower au- gratin Molded fruit salad Whole wheat rolls Apricot whip Beverage	Salmon loaf or lamb patties - bacon wrapped Scalloped potato Green peas Grated carrot - raisin salad Bread - butter Mint ice cream- chocolate sauce Beverage	Roast leg of veal Whipped potato Buttered beets and greens Pear stuffed with cream cheese on Romaine let- tuce Bread - butter Cherry Bavarian cream Beverage	Baked chicken Whipped potato chive butter Summer squash stuffed celery andive salad Rolls - butter Strawberry Shortcake Beverage
Rhubarb crisp Beverage						
Apricot nectar Grilled bacon Cherry fritters - cherry sauce Carrot, celery sticks Orange chiffon cake Beverage	Beef-rice soup Creamed chicken on rusk Broccoli Tomato aspic salad Bread - butter Fresh grapes Beverage	Pineapple juice Baked corn casserole Raw spinach salad Bread - butter Watermelon Beverage	Vegetable soup Fresh fruit plate cottage cheese French style green beans Bread - butter Chocolate layer cake Beverage	Corn chowder Tuna salad in lettuce cups Hard rolls - butter Blueberry cottage pudding - lemon sauce Beverage	Grapefruit juice Eggs ala king - toast points Cabbage-pineapple salad Bread - butter Chocolate cake - white mountain icing Beverage	Fresh fruit cu Open face baco cheese, tomato sandwich Potato salad Brownies or date bars Bread - butter Beverage

Using rotating menus will not put an end to your planning. When you get a set of menus planned for a specified period you can't sit back and say, "Well, that's done for another period", and forget them. There will always be some changes. For example, a food that you had planned, may not be available when you want it. A holiday may appear at a different time when you rotate the menu, which will require changes in that day's meals. You may wish to introduce a new food. You may obtain an especially good buy on a seasonal food. You may need to use left-over foods. Too many changes, however, can be time consuming and may indicate incomplete planning in the beginning. As you use a set of menus over again, you may see ways to improve them, such as a more colorful combination or a different choice of garnish.

In planning cycle menus, it is helpful and economical to plan the dinner meats in a chart form like this:

SUGGESTED DINNER MEATS FOR A TWO WEEK CYCLE

	1st week	2nd week
Monday	Baked cube steaks	Pot roast of beef
Tuesday	Baked ham	Breaded veal cutlet
Wednesday	Meat loaf	Ham and asparagus rolls
Thursday	Braised liver	Swiss steak
Friday	Baked fish or Beef stew with vegetables	Salmon loaf or lamb patties wrapped in bacon
Saturday	Pork chops	Beef pie
Sunday	Fricassee chicken	Baked chicken paprika

One of the greatest benefits of the cycle menu system is the relief from planning a new set of menus each week. It eliminates the haphazard planning which may result if you write your menus hurriedly at irregular intervals. Other benefits you may gain from using cycle menus include:

1. More time available to supervise food preparation, resulting in better food and greater satisfaction.
2. More carefully planned menus.
3. Less waste because you know how much food to prepare.
4. Better purchasing can be done.
5. More efficient workers, because work schedules can be planned better.
6. Elimination of the unpopular foods with a saving of money and labor.
7. Methods become more standardized and uniformly better food results.

SELECTIVE MENUS

Planning good quality, attractive meals, and a variety of foods every day is important, but sometimes it is not enough. Some patients like to choose their own food. Do you occasionally have patients who say "I want an egg every morning for breakfast," or "I don't eat eggs for breakfast," or "I prefer a light supper"? A selective menu may be your solution to these requests.

Naturally, introducing a selective menu will bring many questions: What type of form will be best? How much selection of food items should be given? How should menus be distributed to patients? How can a variety of food be offered without "piling up" the work and increasing the meal costs?

First, the form you use must be clear and easy to read. Use the name of the hospital for a heading and include space for the name of the patient, the room number, and date. The regular $8\frac{1}{2}$ x 11 inch paper is best because it is standard size paper, and can be used on any mimeograph machine, and is large enough to

plan all food choices for three meals. A colored paper lends interest and is practical.

Now let's consider the selection of food items. To keep the work and cost under control, plan the main items in each meal the same as the general menu. Orange juice, a popular breakfast item, can be used every day with a choice of one other fresh fruit or juice. Eggs cooked in various ways may be offered every morning with an occasional choice of French toast or other popular breakfast dish. A choice of meat, vegetables, and desserts can be given on the dinner menu. Generally, soup is planned every day with a choice of fruit juice or other appetizer several times a week.

THREE OAKS HOSPITAL

Name _____ Date _____
Room _____

BREAKFAST

Orange juice or Stewed prunes
Wheatena or Ready to eat cereal
Soft cooked egg Bacon
Toast: White or whole wheat
 Plain or buttered
 1 slice or 2 slices
Beverage: Tea, coffee, cocoa
 milk, sank, postum

Cream

Sugar

Jelly

Please underline the items you desire.
You will receive only those items
selected. Please order large servings
if desired.

THREE OAKS HOSPITAL

Name _____ Date _____
Room _____

DINNER

Chicken rice soup or Pineapple juice
Roast pork loin or Baked chicken
 Whipped potatoes
Buttered peas or Whole kernel corn
Tossed green salad
Chantilly dressing
Strawberry shortcake
 or
Fresh strawberry sundae
Bread: White or whole wheat
 1 slice or 2 slices
Beverage: Tea, coffee, sank, postum,
 milk, skim milk, buttermilk,
 chocolate milk

Please underline the items you desire.
You will receive only those items
selected. Please order large servings
if desired.

THREE OAKS HOSPITAL

Name _____ Date _____
Room _____

SUPPER

Tomato juice or Cream of celery soup
Broiled beef patty or Cheese souffle
Julienne green beans Baked potato
Sliced tomato salad
French dressing
Caramel custard or Bartlett pear
Bread: White or whole wheat
 1 slice or 2 slices
Beverage: Tea, coffee, sank, postum,
 milk, skim milk,
 buttermilk, chocolate milk

Please underline the items you desire.
You will receive only those items
selected. Please order large servings
if desired.

THREE OAKS HOSPITAL

Date _____

GENERAL MENU

Room _____ Name _____

Breakfast

- Orange juice
- Banana
- Catmeal
- Cornflakes
- Soft cooked egg
- Jelly

- Whole wheat bread or toast
- White bread or toast
 - 1 slice
 - 2 slices

- Milk
- Cocoa
- Sanka
- Tea
- Coffee

Portion Size
 — Small
 — Medium
 — Large

THREE OAKS HOSPITAL

Date _____

GENERAL MENU

Room _____ Name _____

Dinner

- Tomato-rice soup
- Roast veal, dressing, gravy
- Meat loaf, catsup
- Mashed potato
- Buttered fresh spinach
- Green beans
- Tossed salad, French dressing
- Sunshine cake
- Fresh rhubarb

- Whole wheat bread or toast
- White bread or toast
 - 1 slice
 - 2 slices

- Milk
- Buttermilk
- Tea
- Coffee
- Sanka

Portion Size
 — Small
 — Medium
 — Large

THREE OAKS HOSPITAL

Date _____

GENERAL MENU

Room _____ Name _____

Supper

- Vegetable soup
- Cold roast beef
- Cheese fondue
- Steamed potato
- Buttered carrots
- Buttered asparagus
- Mixed fruit salad
- Tapioca pudding
- Canned purple plums

- Milk
- Coffee
- Tea
- Sanka

Portion Size
 — Small
 — Medium
 — Large

Supper problems will be reduced to a minimum with a selective menu. Plan choices which appeal to both the light eater and the heartier appetite. Choice of main dish or casserole, salad or hot vegetable, can be made available with little extra work. Offer two desserts at supper as well as dinner, the choice can be between ice cream and made dessert or fruit and pudding.

If patients add items of their own choice to the menu which cannot be supplied, it may be necessary to include a heading on the menu "Only the items listed on the menu will be served" or "An extra charge will be made for requests for foods not listed on the menu". This rule, however, may be disregarded in the case of a patient with little appetite who must be encouraged to eat in order to regain strength and health or upon the advice of the attending physician.

Who will do the mimeographing, distributing, and summarizing of menus? It's best if you can obtain a part time clerk to do this work. Menus can be distributed on the patients' breakfast trays at which time selections can be made for the following day. The menus are sent back to the food service, where the items can be tabulated and summarized for the food preparation sheets, so that the necessary amount of each food can be prepared. If necessary, offer assistance to patients in making their selections of food.

To make the selective menu work as it should, good planning must be done in advance and foods planned must be on hand.

After the patient has made his selection from the printed menu, follow through! Be sure the patient gets his selections. Consider these factors when planning to introduce a selective menu:

FOR

1. Patients are more satisfied when consulted about their food preferences.
2. There is less food waste.
3. There is an opportunity to teach the patient how to select a balanced meal.
4. Patients on modified diets can also select their food.

AGAINST

1. Some patients do not like to know beforehand what they will have to eat.
2. Requires planning and additional personnel.
3. Patient may not choose a balanced diet.
4. Requires purchasing and preparation of greater variety of food.

Chapter III

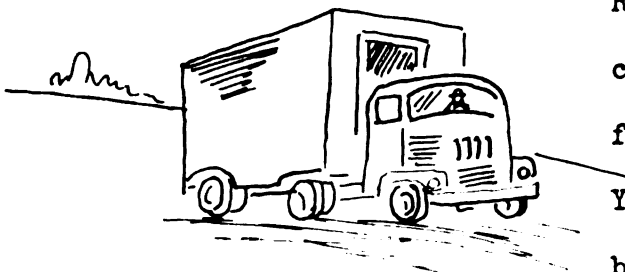
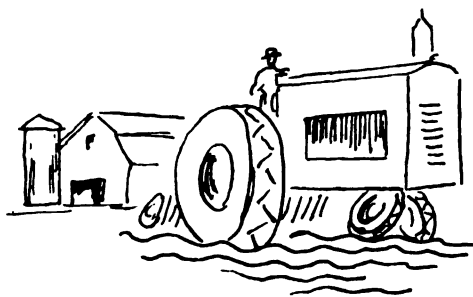
FOOD PURCHASING

Know the food you buy. Don't be a "guess shopper"!

If you purchase the food for your institution, you are probably spending between 75 cents and a dollar every day for each person you feed. If you are feeding fifty people daily, you will spend from \$13,000 to \$18,000 a year for food. This is a considerable amount of the total expenses of the institution. Do you always spend your food dollar wisely?

Fortunately, the purity of the American food supply is unequalled anywhere in the world. Government inspectors examine millions of dollars worth of perishable foods coming into our states. Fresh fruits and vegetables are literally rushed to canneries and frozen food plants to preserve their freshness under scientifically controlled conditions.

Availability of foods on today's markets has increased and it is no longer a novelty to find many kinds of fresh fruits and vegetables available throughout the entire year. New growing areas have been developed so that lettuce, for example, can be grown in the warm climates during the winter and farther north as the season advances.



Refrigerated transportation has become commonplace, not only in the interstate food business, but in local transportation. You may even specify that some perishables be delivered to your door in a refrigerated truck.

Grades or standards of quality and value have been set up by the Federal government on almost all foods. Learn the characteristics which indicate quality foods and avoid unnecessary wastefulness.

FRESH FRUITS AND VEGETABLES are usually packed by the growers according to size and quality, and can be purchased locally or from wholesale markets located close enough for regular deliveries. The government grades for most fresh fruits and vegetables are:

1st Grade U.S. Fancy	2nd Grade U.S. No. 1 or Commercial	3rd Grade U.S. No. 2
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Fresh fruits and vegetables are not individually labeled, but if you buy in large enough quantity you may see the grade, size, etc., marked on the shipping container. Brand names are sometimes marked with indelible, non-poisonous material on the skin of individual citrus fruit. Apples packed in boxes may have the name brand printed on the individual paper wrappers.

You will find very little U.S. Fancy grade in the markets, because this indicates a perfect product. U. S. No. 1 grade produce, the best buy for most food service operations, is practically free from defects and is of uniform size, shape, and color. If money is spent for shriveled, decayed fruit, or wilted, discolored vegetables, the buyer loses. Poor quality is NEVER a bargain at any price.

If you buy boxed produce, make certain that the contents are the same throughout the container. Sometimes the top is filled with the finest specimens while the lower layers are inferior.

Buy the quality and size that is most appropriate for your purpose. Smaller apples are very satisfactory for salads. Large oranges are not always the best for juice.

When possible, visit the markets in your locality to compare prices and quality and to select first hand the produce you use. You may be in an area where fruits and vegetables are grown and can buy them directly from the farms. Berries, melons, peaches and pears, sweet corn, cucumbers, cabbage and tomatoes purchased locally have that "garden-to-the-table" freshness of flavor which will be enjoyed by all persons you serve.

Fresh fruits that are to be served whole or eaten "out of hand" should be washed to remove any lingering spray residue.

Citrus fruits, tomatoes, and honey dew melons are often subjected to artificial ripening. This is a harmless process which blanches the green color by ethylene gas. The maturity of the fruit is not changed, but you cannot depend on the color of the fruit peel to indicate ripeness. Oranges may have slightly green color and still be ripe enough to meet the standard for ripeness. Oranges are often dipped in dye to take on a deeper color. The Food and Drug Administration requires such oranges to be stamped with the words "color added".

CANNED FRUITS AND VEGETABLES are usually purchased by brand and each brand name represents a grade, as Fancy, Choice, or Standard.

"Fancy" grade indicates top quality products which have been carefully selected for color, degree of maturity, and size.

"Choice" grade refers to good quality products but those which are less uniform in color, size, or maturity.

"Standard" grade refers to wholesome products which are less perfect in color, size, and maturity.

You can buy some fruits packed in water without sugar added. These are usually of Standard grade, called "pie packs", and are less expensive than Fancy or Choice packs. For cooked fruit desserts and for pies, they are an excellent selection.

Canned products are also purchased according to type, size, count, and style.

"Type" refers to the characteristics of the product, such as, early or sweet peas; cling or freestone peaches; etc.

"Style" refers to whole, halves, sliced, or diced.

"Size" refers to large or small, such as peas, limas, or green beans.

"Count" refers to the number of pieces found in the container, or to contents measured in cups. This is valuable information for calculating the number of servings you can get from one container.

In the light of this information you can specify the kinds of canned products you wish to buy as:

(Brand Name) Apricots (Whole) peeled, U.S. Grade B, (Choice), heavy sirup,
maximum count 60

(Brand Name) Cherries, Red Sour, pitted, U.S. Grade C, (Standard), water
packed in enamel lined tin

(Brand Name) Fruit Cocktail, U.S. Grade A (Fancy), extra heavy sirup

Before buying canned items, you may request samples to be submitted. If you wish to buy canned tomatoes, for example, request several comparable grades. Open the cans and compare the quality, quantity, and number of servings obtained from each can.

No. 10 size cans are the most economical size for most items if you are serving more than 25 people. Having some canned products on hand in No. 2, 2½, 3, or 303 sizes may be wise for taking care of special orders or for use when another No. 10 can would give you too much food for the number of servings required. Unused portions of a No. 10 can may be safely stored in the can provided it is covered and refrigerated. The unused portions can be used in salads or soups

or other combination dishes in a day or two.

Learn to read labels! They are the "windows" of the can. This is the labeling information required on all products by the Food and Drug Administration:

NAME OF PRODUCT -- To identify the food

NET CONTENTS -- Gives accurate amount of contents just as scales tell weight of food you buy in markets.

NAME OF PRODUCER -- Gives name and address of packer or distributor.

INGREDIENTS -- A list of all ingredients used in processing the product.

This additional information may be added voluntarily by canners:

BRAND NAME -- To aid the purchaser to get the same product each time.

PICTURE OF THE PRODUCT -- To show the buyer what he may expect to get when the can is opened.

It is most economical to buy canned products by the case. The amount of available storage space determines how much you can sensibly buy at one time. Planning menus in advance and doing a little figuring helps you to estimate the amount of some items you will need a month or two ahead.

Canned foods are among the safest foods you use. After a can has been opened, however, the food must be treated as perishable. Store canned products in a cool dry place and away from dripping pipes. Rust on the outside of cans is not harmful, but it may cause the cans to leak and thus result in spoilage. Freezing does not affect the wholesomeness of canned food but may cause deterioration in flavor and appearance.

FROZEN FRUITS AND VEGETABLES are being used more and more in institutions. Unless you have adequate freezer space, however, the amount you use will be restricted to the items that can be used immediately upon delivery. Purchase of U. S. Grade A is recommended for frozen fruits and vegetables.

Most frozen fruits are packed either sweetened or unsweetened in 12 ounce to 30 pound pails. Several sizes of packs are available. Vegetables for quantity cookery are packed in 5 pound packages. All waste is removed so that you are paying only for edible food. Prices are usually comparable to costs on fresh produce. Since there is no preliminary preparation when you use frozen fruits and vegetables, you may be saving dollars in labor. In making your choice between fresh fruits and vegetables and frozen items, be sure to consider the preparation cost for the fresh foods.

EGGS

If you know where to buy eggs, how to check on their quality and size, and how to store them, you are likely to have good quality eggs to use at all times. Eggs should be purchased according to Federal grades, U. S. Grade A and B are the most widely used in institutions. Both the size (large, medium, small) and the quality (grade A, grade B) should be designated. The label on officially graded eggs will read: U. S. Grade A, Large; U. S. Grade A, Medium; or U. S. Grade B, Medium; etc. Eggs that are not graded officially under the Federal programs cannot carry the letters "U. S." on the label. Many progressive egg dealers apply a trade mark or brand name to identify the different qualities they sell which have not been federally graded.

Buying federally graded eggs is important, but check the weight on your own scales to see how well the eggs agree with their description. According to U. S. weight, a dozen eggs must weigh:

Large - 24 ounces per dozen

Medium- 21 ounces per dozen

Small - 18 ounces per dozen

You may wish to purchase Grade AA "extra large" by the dozen for breakfast poaching

or frying or cooking in the shell. Grade A medium eggs purchased by the case are recommended for all-round institutional use. They should weigh not less than $39\frac{1}{2}$ pounds per 30 dozen case. Order by the case or half-case if you can keep them in the refrigerator.

To keep the high quality of the fresh eggs you buy, refrigerate at 45° F. or lower. Eggs left for four days in a warm kitchen lose as much "freshness" as eggs held for several weeks in the refrigerator. Whenever possible, buy eggs from a dealer who keeps eggs under refrigeration.

Don't pay premium price for the color of the shell. The nutritive value and cooking qualities of eggs from brown or from white shells are the same. Small eggs are usually more plentiful in late summer and fall and are usually the most economical. These are "good buys" for general cooking: weight for weight, they are equal to large eggs of the same quality.

You can buy frozen eggs, too. They are available as whole eggs, frozen whites, or frozen yolks and are packed in 10-pound or 30-pound tins. At some seasons of the year they are cheaper than an equal amount of fresh eggs -- and imagine the labor saved when you need many dozens of eggs in the preparation of baked custard and scrambled eggs! You can produce angel cakes with frozen egg whites and not have to wonder what you might do with all the yolks in the fresh shell eggs.

1 pound of frozen yolks - 24 to 28 fresh medium eggs.

1 pound of whites - 15 to 16 fresh egg whites.

1 pound of whole eggs - 10 fresh medium eggs.

FISH: FRESH, FROZEN AND CANNED*

Some varieties of fresh fish are more abundant during certain seasons of the year. Local fish dealers will gladly furnish information concerning seasonal varieties and will suggest those that can be used to best advantage. Sometimes a less familiar variety will be a "good buy". To save time in preparation and cooking, fresh fish can be purchased as fillets, steaks, or dressed. Allow $\frac{1}{3}$ pound of the edible part per person when purchasing fresh fish, or approximately 30 pounds per hundred people.

Fresh fish should be kept constantly below 40° F. Ice is the best preservative for keeping fresh fish since it not only holds the temperature but keeps the surface of the fish moist. If you buy fresh fish, make sure they are well iced when received. Examine immediately when received for signs of spoilage.

Frozen fish of many varieties can be purchased the year round. They are like fresh fish in appearance, flavor, and food value. Purchase the same amount of frozen fish per person as you would fresh fish.

Frozen fish must be kept solidly frozen until ready for use. Frozen fish fillets and steaks may be cooked while frozen, but additional cooking time must be allowed. When frozen fish fillets are to be breaded or whole fish stuffed, thawing them first makes them easier to handle. Thawing at refrigerator temperature is recommended. Although sometimes practiced, thawing at room temperature is not recommended, as the thinner parts of the fish thaw much faster than other parts and are subject to spoilage if the thawing period is too long. Frozen fish may be thawed by being embedded in crushed ice but this method is much slower.

Do not refreeze fish that has been thawed.

Canned fish have the advantage of being boneless and completely edible. The most commonly used are salmon and tunafish. However, improved methods of preservation have made available many other varieties of canned fish such as mackerel, cod, herring, shad, whiting, and sardines. Many of these can be used in chowders, fish balls, and fish cakes to add zest and variety to your fish menus.

The highest priced varieties of salmon are deeper red in color and have a higher fat content. Chinook or King Salmon is the most expensive grade, and is most desirable for salad or main menu items because of its excellent flavor and attractive color. Pink or chum salmon, the most economical to buy when you plan fish loaf, croquettes, or casseroles, has the same nutritive value as the most expensive grades. Salmon may be purchased in cases which weigh $3\frac{3}{4}$, $7\frac{1}{2}$, $15\frac{1}{2}$, or 64 ounces. You can count on serving 6 persons from a 1 pound can, or 16 to 24 cans will serve 100 persons.

There are three principal grades of canned tuna, the solid pack tuna, the chunk size tuna, and the flake or grated tuna. The solid pack is the fanciest grade consisting of large pieces of the loin of the tuna fish. This grade is usually selected for salad. The chunk size consists of medium sized pieces and is most desirable for creaming and casserole dishes. The flake or grated tuna is made up entirely of small pieces.

There are two types of tuna, white meat tuna obtained exclusively from the albacore, and light meat tuna which comes from the species, yellowfin and skipjack. Because of the smaller percentage of white meat packed, it is the most expensive. Light meat tuna is less expensive but has a delicate flavor and good texture. Select the type that best suits your food service standards and choose the grade according to the recipe used. Solid and chunk tuna may be purchased in cans weighing $3\frac{1}{2}$, 7 and 13 ounces; tuna flake and grated

are packed in 3, 6, 12, and 64 ounce cans.

BUYING SHELLFISH

Shrimp are sold as follows:

Fresh, whole (heads on).

Fresh or frozen, headless with shells on.

Fresh or frozen, cooked, shells removed and cleaned.

Frozen, breaded with a coating of crumbs or cornmeal after being peeled and cleaned.

When shrimp are sold as "green shrimp", this does not refer to the color and species, but describes shrimp that have not been cooked. Shrimp are usually sold on the basis of size, the larger sizes having the higher prices. The "count" may be described as jumbo, large, medium, and small. The largest sizes are the most expensive but easiest to prepare. The quantity of shrimp you buy depends on the recipe and method of cooking. In general, 24 - 30 pounds of headless fresh or frozen shrimp, or 12 - 15 pounds of cooked meat will serve 100 people.

Oysters are sold on the basis of size as follows:

	<u>Trade Name</u>	<u>No. Per Gallon</u>
Extra large	Counts	160 or less
Large	Extra selects	161 to 210
Medium	Selects	211 to 300
Small	Standards	310 to 500
Very small		Over 500

Shucked oysters should be creamy in color with clear liquid. When purchased in package or can, there should not be more than 10% of liquid (by weight). Excessive

liquid indicates improper handling and results in "bloating" of the oyster meat. This means loss of flavor and food value. Three and one half gallons of shucked oysters will serve 100 people.

Store fresh shellfish at 32° F. A few degrees higher will cause loss of quality in a few hours. Store frozen shellfish with the same care as you give any frozen fish. Thawing methods are the same as those for frozen fish.

Continuous inspection service under the supervision of the Food and Drug Administration is conducted for some of the packers of canned shrimp and canned oysters. For this reason it is well to buy these shellfish products from dealers who sell inspected products.

* From "Fresh and Frozen Fish Buying Manual", Circular 20, U. S. Department of the Interior, Washington, D. C.

POULTRY

The many different kinds and classes of poultry and the many interesting ways of preparing poultry offer variety for the main dish the year round.

CONSIDER ---- KIND -- Chicken, turkey, duck, goose.

CLASS - Chicken, broiler or fryer; stewing hen (chicken or turkey); turkey fryer or roaster; young turkey; roasting duckling.

STYLE - Ready-to-cook (whole or parts); or dressed; chilled or frozen.

LOOK FOR OFFICIAL GRADE AND INSPECTION MARKS



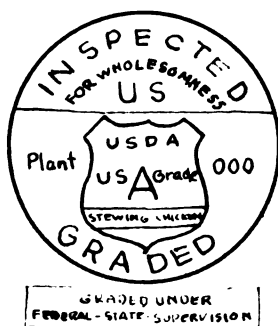
GRADE MARK

The grade mark in the form of a shield tells the grade or quality of the product (U. S. Grade A, B, or C). It is used on ready-to-cook poultry that has been officially graded for quality and may be used only if the inspection mark denoting wholesomeness appears also.



INSPECTION STAMP

This circle denotes wholesomeness only, and is used on ready-to-cook poultry and cooked poultry products made from ready-to-cook poultry of any quality that has been officially inspected and passed as wholesome food.

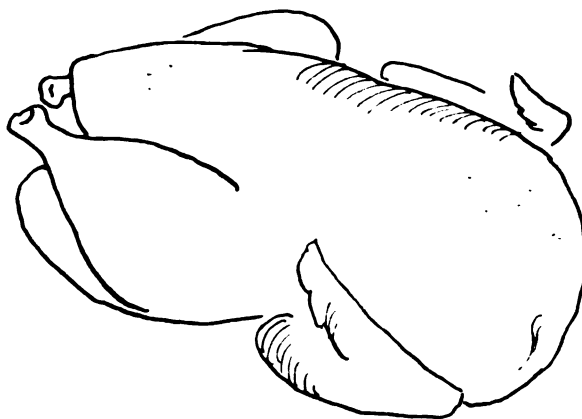


INSPECTION AND GRADE MARK

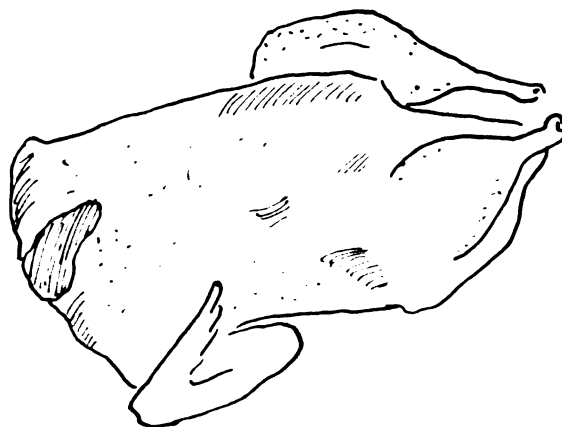
The combined grade and inspection (shield and circle mark) is used on ready-to-cook poultry that has been officially graded for quality and also passed as wholesome food.

CONSIDER QUALITY:

Poultry labeled U. S. Grade A will have no deformities, such as a crooked breast bone, and will have full breast and meaty legs. The fat will be well distributed under the skin and it will have no pin feathers and practically no tears and bruises.



A bird labeled U. S. Grade B may have only minor deformities, be fairly meaty with a fair covering of fat, minor tears and bruises, and a few pin feathers.



Ready-to-cook poultry has been fully drawn (eviscerated), thoroughly cleaned inside and out, and priced after the removable waste has been discarded. Due to the loss in weight from waste removed and the cost of drawing and cleaning, you will pay more per pound for ready-to-cook than for dressed poultry (from which only the blood and feathers have been removed). But the actual cost of the poultry meat is about the same.

Poultry may be purchased fresh or frozen. Today with modern methods of processing most poultry items can be obtained the year around and the price remains fairly constant. If you buy ready-to-cook frozen poultry, see that it is still frozen and shows no evidence of previous defrosting when you receive it. Keep it frozen until ready to use. Cook it promptly after thawing. For best quality, do not refreeze.

Poultry items recommended for purchase are:

Fowls weighing $4\frac{1}{2}$ - 5 pounds (eviscerated, fresh or frozen) are often "good buys" during late summer. They are especially good to buy when you want to use the meat for creamed dishes, casseroles, or for chicken pie.

Broilers or fryers -- $1\frac{1}{2}$ - 2 pounds (eviscerated, fresh or frozen).

These are abundant during most of the year at moderate to low prices.

They can be cut in quarters and baked in the oven, or started under the broiler and finished off in the oven.

Turkeys -- Toms or hens -- whole, half, or cut into pieces (eviscerated - frozen). Turkey gives greater yield than chicken pound for pound when you serve it roasted or in creamed dishes. The larger tom turkeys and hens are usually the most economical as there is more edible meat in proportion to bone. This makes the cost less per pound of meat.

Packaged Poultry - Chickens can be purchased whole, split in half, quartered or cut into smaller frying pieces. You can purchase packages of breasts, drumsticks, thighs, wings, livers, backs, and necks, hearts and gizzards. These cut up packages are economical when labor is short. Serving chicken legs (finger foods) for example, can reduce feeding problems and still make it possible to serve solid meat.

ANTIBIOTIC USED IN RETARDING SPOILAGE IN FRESH POULTRY

Poultry stays "farm fresh" days longer when treated by a new process. Food service operators today may buy poultry to which is attached a seal or tag bearing the word "acronized". This process is the result of intensive research on antibiotics in scientific laboratories and simply means that an antibiotic has been used legally to prolong the freshness of uncooked poultry processed under sanitary conditions. The value of this process is that it retards the

growth of spoilage bacteria and maintains the "in storage" freshness for two or three weeks. This "acronizing" process is not a substitute for refrigeration or good sanitation. It does not change the color, flavor, or odor of fresh-killed poultry.

How are the antibiotics applied: The antibiotic, a yellow powder, is dissolved in water and added to a cooling tank containing chilled water. Fresh poultry are dipped in the tank for 30 minutes, then packaged. The antibiotic retards the growth of bacteria on the surface of the poultry skin.

The use of this process is restricted to authorized packing plants which maintain sanitary conditions approved by Federal inspectors. Tender, clean, firm poultry is easily identified by the green and white tag right on the chicken.

MILK AND DAIRY PRODUCTS

The handling of fresh milk is controlled by state and local ordinances. Check these regulations with your local health authorities before you arrange with a dairy for milk delivery. Because milk and milk products may be carriers of human diseases, be sure your dairy supplies safe, pasteurized milk.

Grade A pasteurized milk is the best. For drinking, purchase milk in 1/2 pint containers and serve it in the original containers. Milk for cooking can be purchased in 1, 5, or 10 gallon containers, but it should be of the same standard quality. The use of bulk milk dispensers for drinking milk is an economy. If one is purchased, be sure to select one which is approved by local health authorities. The milk must be dispensed directly into individual glasses.

Homogenized milk has been processed so that the fat particles are evenly distributed

and there is never a "cream line". It seems richer, however, and can be used as a substitute for cream in coffee and on cereal, at a real saving. Purchase grade A pasteurized homogenized milk with vitamin D added, if you are feeding children.

Half and half milk can be purchased in quarts or gallons, contains 10% - 12% butterfat, and is about half as much as regular cream which has a butterfat content of 18% - 20%.

Evaporated whole and skim milk is economical to use in cooking. When diluted with equal parts of water, it can be used in any recipe which calls for fluid milk. Before cans are opened it does not require refrigeration but once the cans are open it should be refrigerated. Buy in No. 10 cans. This will provide 6-1/2 quarts of whole milk when diluted with equal amount of water. You may wish to buy some No. 1 tall cans, too.

Nonfat dry milk costs about one-fourth as much as fresh fluid milk when purchased in 100 pound drums, and is so easy to use in cooking. It can be made into fluid milk merely by adding water, or added as one of the dry ingredients in recipes. You can store dry nonfat milk on your pantry shelf in the containers in which it is delivered. It can be purchased in amounts ranging from 1 pound packages to 250 pound barrels. Remember, however, that the smaller units may cost twice as much as the larger amounts.

Ice Cream is no longer a luxury item to be used only on holidays or special occasions. It is a wholesome food and universally popular with young and old. It can be used on many "special diets" where prepared desserts are not appropriate. Very little waste occurs when it is served and it makes an excellent dessert to plan on the baker's day off. Dairies and ice cream companies will deliver 1/2, 1, 2-1/2, or 5 gallon containers and in almost any flavor desired. One gallon

of bulk ice cream will serve 25 persons, using a No. 10 scoop, or you can count on 7 or 8 servings from a quart.

Weekly supplies of ice cream may be delivered at one time if you have freezer space or an ice cream cabinet. If these facilities are not available, bulk, sliced, or individual package ice cream may be delivered in insulated bags or packed in dry ice.

Cottage Cheese consists chiefly of the curd of milk and is therefore a perishable food and must be kept under refrigeration. It can be purchased in 1, 5, 20, 30, and 50 pound cartons. It should be used when fresh so you will not want to purchase more than you can use in 2 or 3 days.

American Cheddar is made and sold in several styles and shapes, and classified according to age, or degree of flavor as a result of ripening, texture and degree of firmness, and degree of color. It can be purchased as:

Longhorns	12 - 13 lbs.
Daisies	20 - 25 lbs.
Flats	30 - 33 lbs.
Cheddars	60 - 65 lbs.

Processed brick cheese, called cheese food, may be purchased in 2 or 5 pound bricks. A month's supply of cheddar type cheese is enough to purchase at a time and should be kept tightly wrapped in a cold storage at a temperature of 30 - 46 degrees.

Butter can be purchased in 1 pound bricks or in individual pats. The individual pats may cost more, but it's easier to control the portions you get from a pound, and eliminates waste and the work of cutting pounds of butter into individual portions. Pats are cut 48 - 60 - 72 - 90 to the pound, and are packaged in 5

pound packages, 6 to a case. The 60 pat size gives an average size serving. The pound size prints are packed 24 - 43 pounds to the case.

Oleomargarine, fortified with vitamin A, is almost equal to butter nutritionally, but costs half as much. Most states require all margarine to be fortified, colored and ready to use when packaged. Michigan law states that oleomargarine can be used in place of butter as a spread only if a sign is posted clearly indicating to all clients that it is being served. The individual pat of colored margarine must also be cut in triangular shape. This ruling applies to all institutions other than state penal institutions.

Vegetable shortening and lard can be purchased in pound bricks, 30 to 48 pounds to the case or in bulk containers weighing 50 pounds. These fats may be used interchangeably in cooking, but vegetable shortenings usually cost more. Lard must be refrigerated while vegetable shortenings may be stored at room temperature. Salad and cooking oils may be purchased in gallons and five gallon containers.

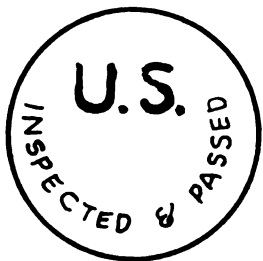
MEAT

Did you know that you spend 25 to 30 cents of each dollar you spend on food to buy meats? One quarter, or 25% of your food dollar is spent for meat. Meat is one of the most expensive menu items; it is one of the most popular foods on the menu; and it is the item around which you plan the rest of the menu. Knowing how to buy meats wisely is, therefore, very important.

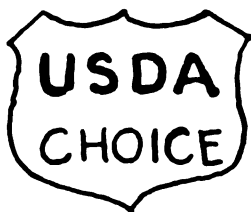


How can you get the most for your meat dollar? A knowledge of meat selection, proper care, and preparation is the only way to receive full value from the meat you buy.

These are the guides to meat buying:



The Inspection Stamp, which declares that the meat is wholesome, and that all meat so inspected comes from healthy animals, slaughtered under sanitary conditions.



The Grade Stamp, which contains the letters USDA, meaning the United States Department of Agriculture, and the grade name. The six grades for beef are: PRIME, CHOICE, GOOD, STANDARD, COMMERCIAL, and UTILITY.

Don't confuse the two stamps. The Federal Grade Stamp denotes quality. The Federal inspection is a symbol of Federal meat inspection. Both stamps are applied with a harmless vegetable dye usually along the full length of the carcass or full length of the cut.

When purchasing meat, it's smart to consider how you want to use the meat. The grade name appearing on the grade stamp can be used as a guide to quality, and as a guide to preparation. Learn the grade that is best suited to your needs. Remember, too, the proper selection of cuts is important. A GOOD grade T-bone steak, for example, will be more tender than a CHOICE grade round steak.

In general the less tender cuts are less expensive, but require moist cooking, such as braising or stewing. Cuts tender enough to roast, fry, or broil, are usually the most expensive. Less tender cuts are just as nutritious and full of flavor.

The cut with the lowest price per pound is not always the best buy. The number of servings you get for your money is important, too. You will need, per serving, 1/2 to 1 pound of meat if it contains bone and gristle, 1/3 to 1/2 pound of meat that has a medium amount of bone, and 1/4 to 1/3 pound of meat with no bone. A boneless cut could cost more per pound than one with a great deal of bone, and yet very likely be a better buy. Boneless roasts take less room in the oven and are easier to carve into uniform portions. GOOD grade is often a satisfactory choice for stew and pot roasts.

A large proportion of the beef you buy is probably in the form of ground beef. If you grind your own, buy good quality chuck. Although commercial grade is satisfactory, better grades produce a better product. If you buy ground beef from the butcher or wholesaler, specify the quality you want. It should have no more than 15 - 18% fat content, otherwise there will be excessive shrinkage. Ask to have the meat ground twice for better distribution of fat and to produce greater tenderness. Because hamburger has to be handled many times, it spoils easily. Buy only day to day requirements of fresh hamburger. Use up the meat as soon as it is delivered and store in shallow pans in the refrigerator at 38° - 40° F. Cover pans lightly with a clean towel or waxed paper. Beware of hamburger made with scrapes of old beef, organs, pork and cereal fillers. Don't take quality for granted.

OTHER MEATS GRADED

Veal, calf, lamb, and mutton are also Federally graded. The grade of meat is indicated on the stamp, and the kind of meat is identified as veal, calf, yearling mutton, and mutton.

Are you often tempted to buy beef in carcass form? Remember, a side or a quarter of beef is not all meat! It does not always pay to buy this way even when the cost per pound would indicate that you are getting a bargain. Careful cutting by an experienced meat cutter is required to get full value from carcass meat. Inexperienced food workers, or other employees "doubling" as meat cutters have been known to include the choicest cuts from a carcass, in ground meat. Cutting the entire carcass into stew meat or hamburger may make it more expensive than buying the meat in wholesale cuts for use as needed. The cost of expert butchering services on the premises is usually prohibitive.

PREFABRICATED MEATS

Today, more and more food service operators are buying prefabricated meats. To use or not to use is an individual decision, but it may be your answer to controlling costs and amounts of meat purchased. The cost per pound is usually a little more than wholesale or primal cuts, but you can buy the number of servings you need, and the cost of each serving is easily determined. That way, too, you can "buy your labor in the package", as prefabricated meats are portion-cut and ready for cooking.

You can buy a variety of meat patties, steaks, cutlets, chops, in beef, veal, lamb, or pork. Frozen steaks and meat patties may be cooked without thawing.

STAPLES

Staple items include the miscellaneous foods that do not require refrigeration. The "know how" in buying the best quality for the best possible price depends on reading the labels. For best returns nutrition-wise, buy enriched or whole grain bread, cereals, and flour.

In the refining and processing of flour and cereals, vitamins and minerals are sometimes lost. Because of this, the American diet was believed to be short in essential nutrients. Some of the common foods have been approved as carriers of additional nutrients. Bread, white flour, and cereals were selected because they are low cost, everyday foods which are readily available. The Federal government has set standards for the nutritional improvement of these foods, specifying the nutrients and the amounts that may be added. "Enriched" was the word chosen to describe the addition of thiamine, niacin, riboflavin, and iron to white flour. Likewise, enriched bread contains these three essential B vitamins and iron. If the label reads "enriched", you can be sure the B vitamins and iron content are set by law. Don't assume that all dark breads, however, contain all the vitamins and minerals of whole grain bread. Dark bread is often made from a combination of white flour and whole wheat flour. The white flour may or may not be enriched. If the label reads "whole wheat", the bread must be made from 100% whole wheat flour including the germ. Read the labels carefully to be sure!

As in white flour, many of the vitamins and minerals are lost in the processing of breakfast cereals. Most manufacturers are "restoring" their cereal products to make the amount of important nutrients the same as for whole grain. One or more of the following may be added to breakfast cereals: iron, thiamine, riboflavin, and niacin. There are no Federal standards set for the addition of nutrients to breakfast cereals except in the case of "enriched farina", and "enriched grits". Read the labels on cereal packages to find which nutrients have been restored.

All kinds of cereals requiring cooking come in 1 pound, or 1 pound - 12 ounce packages, 18 to 24 to the case. Ready-to-eat type cereals are packaged in 1, 5-1/2, 7, 8, 9, 10-1/2, 12, and 16 ounce packages, 12 - 100 packages in a case. For economy, buy 1 pound - 12 ounce packages. For convenience and to allow individual choice, buy small packages, 1/2 to 1 ounce each. Cereals of all kinds

become stale on long standing even with best storage conditions. Plan to purchase them for delivery monthly.

Flour, including enriched pastry flour and cake flour, is available in 2 to 100 pound bags. The amount you buy at one time depends on the amount of baking you plan to do in your food service, and whether or not your storage space is dry, well ventilated, vermin and insect proof. Always examine the bags when delivered to see that there are no holes and that they are clean and free from insect infestation.

Mixes for all types of products such as cakes, cookies, muffins, gingerbread, doughnuts, pies, and biscuits are now available. Some require the addition of water or milk and/or eggs. A good cook can probably make better products "from scratch", but mixes have advantages. They are time and labor savers, can be used by the most inexperienced cooks, and allow you to determine the number of servings more accurately than when items are baked entirely from raw materials.

Pudding powders are available in many popular flavors, including chocolate, vanilla, lemon, butterscotch, and coconut cream. These may also be used for pie fillings, sauces or as cake filling. Some of these mixes require the addition of water or milk, some call for sugar and eggs. Pudding powders are usually packaged in 1 to 5 pound packages, but mixes may be purchased in 1 pound or up to 50 pound bags.

Before buying quantities of these "ready made" products, ask for samples of each type. Make up according to directions on the label and compare costs, taste, quality, and texture with the same products made from raw materials. Purchase only the ones that have been found to be acceptable to your clientele. Money spent for items that only sit on your pantry shelves is money wasted. Because some of these puddings will become caked or hardened, and the leavening agent

in the mixes may deteriorate, buy only the amount you can use in one month.

Do all macaroni, spaghetti, and noodles taste alike to you? If the label says "made from durum wheat" or "made from semolina" you are buying top quality. Durum wheat is a special kind of hard wheat and gives to these products a mild, almost "nutty" flavor; holds its shape in cooking, and doesn't mush together. These foods are packaged in 1 or 2 pound packages or in 10 and 20 pound bulk cartons. Because of the good keeping qualities of these items, you can purchase a 3 months' supply at a time. Keep them covered and store in a dry, ventilated storeroom.

QUANTITY BUYING

The number of persons to be fed, and the amount of space for storing food safely will determine how much you can wisely buy at one time. It is usually more economical to buy staples and canned goods from wholesale rather than from retail suppliers. Sometimes "good buys" on seasonal foods can be had at your local markets. When possible, visit your community markets, wholesalers in nearby cities. Tell them the foods you expect to be buying and the quality you desire. Study wholesale market reports in the newspaper to discover good buys at special times. Don't hesitate to inquire about special discounts made to institutions on some items by wholesalers, or even by local markets.

MONEY SAVED BUYING LARGE SIZE PACK*

ITEM	PURCHASE UNIT		APPROXIMATE AMOUNT SAVED BUYING LARGE SIZE PACK
	LARGE	SMALL	
Tuna fish	4 lb. 2 oz.	8 oz.	13¢ lb.
Green beans, grade A	1 No. 10	1 No. 303	3¢ per cup
Soap	barrel	1 G box	10¢ lb.
Gelatin, plain	5 lb.	1 oz. pkg.	\$2.00 lb.
Gelatin, flavors	5 lb.	3 oz.	12¢ lb.
Macaroni	10 lb.	11 oz. pkg.	8¢ lb.
Noodles	10 lb.	5 oz. pkg.	9¢ lb.
Salt	25 lb.	26 oz.	3¢ lb.
Napkins	500	80	5¢ per hundred
Vanilla, pure	gal.	pt.	12¢ per pt.
Flour	100	10 lb.	3¢ lb.
Cinnamon	5 lb.	1½ oz.	86¢ lb.
Baking powder	10 lb.	1 lb.	6¢ lb.

* Report of study by Sister Ronald, Graduate Student in Institutional Administration, School of Home Economics, Michigan State University, 1956.

Placing Your Order

It's good business to get prices from more than one company when ordering staples and canned goods. Compare prices and quality.

It's wise, too, to have more than one source for meat, eggs, and fresh produce in order to have an adequate supply at a favorable price when you need it.

If you place your orders by phone, be sure to state the quality of food you want as well as the kind and amount.

Buying food everyday is time consuming. It's like going to the store to buy a "package of pins, a pin at a time". Budget your time as well as your food money. Make yourself a schedule for your regular weekly buying. It might be something like this:

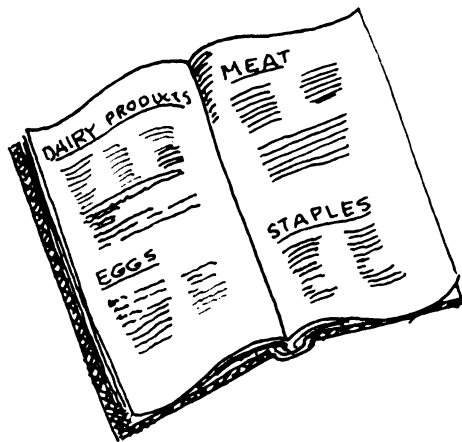
On Monday a.m., go through your menus and order meats, fruits and vegetables, eggs, to be used through Friday noon.

On Thursday a.m., place your orders for foods to be used from Friday noon through the following Tuesday noon.

In addition to the kinds, amounts and prices of foods you wish to use, consider the delivery times for receiving foods. Plan ahead with your dealers for the special items for certain days.

Whether you order by telephone or with a regular salesman, always write all food orders in a notebook as you place them. Don't use little slips of paper. They may get lost, thrown away, or misplaced. Then, the first thing you know, there is no record of the items purchased. Don't try to keep orders in your head! You may not be on hand to receive them, and your workers are not mind readers. Keep a record of standing orders or foods purchased on contract in the back of the book. Copy orders for staples in the book, too. Record the unit price for each item ordered. This keeps your marketing information together, not only for future reference, but will help you to determine daily food costs.

YOUR DAILY ORDER BOOK



Milk, ice cream, canned goods, may be purchased on contract, and delivered as needed on a daily or weekly basis. Keep a record of "standing orders" in your purchase book, too.

Checking in Supplies

Once foods have been purchased and delivered, make sure they are checked in before being stored. With the help of your order book, make sure the amount, kind, and quality is what you purchased. Using the scales at the receiving area, check to see that you are getting the weights you ordered. Return promptly any items that are not satisfactory.

Chapter IV

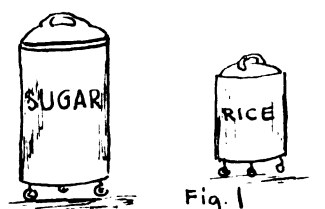
FOOD STORAGE

When old Mother Hubbard went to her cupboard, she couldn't find even a bone because her cupboard was bare. Can you always find the item you need in your well stocked storage rooms? Too often storage rooms are neglected and become a "catch-all" for unused equipment, odds and ends of china and trash. With overcrowding, dust accumulates, floors cannot be cleaned, and much valuable material becomes worthless through contamination or hidden in the clutter. Every square inch of storage space means money to your institution. Let your good housekeeping and sense of economy "show" in the first glimpse of your food storage areas.

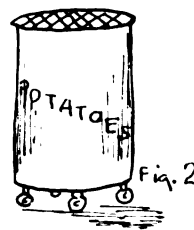
As soon as food is delivered, store it in the proper place. Always check in the foods yourself, or delegate to a specific dependable worker, to insure delivery of the quality, weight and count that you have purchased.

STORAGE OF STAPLES & CANNED GOODS

Bulk materials, such as sugar, rice, beans, and flour, can be kept in covered containers placed on dollies for easy moving. (Figure 1)



Galvanized cans on castors with wire mesh cover are suitable for potatoes or root vegetables. (Figure 2)



Use a wooden platform, six inches off the floor, for items in bags. (Figure 3)

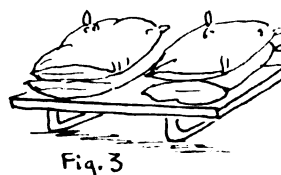




Fig. 4

Separate foods according to the type and conditions of store room. For example, store sugar and salt and other foods that might lump, in the driest part of the room. Store items that should be used rapidly in most accessible part. Store items in an orderly fashion.

Materials in boxes, cartons, should be stored well off the floor to discourage nesting of mice. (Figure 4).

Discard all leaking cans or cans which have swollen ends as soon as they are discovered. Keep opened canned goods, dried fruits, and salad dressing in the refrigerator.

Keep prunes, raisins, noodles, cereals, and nuts in tight containers. Move stocks of food in the storeroom every 30 days to clean the shelves and floor and prevent nesting of insects and rodents and the accumulation of dust.

The size of the main food storage room depends on how many meals you serve. If the storage room is located close to the kitchen, you will find control is better and easier. Even with this arrangement, it may be desirable to have a small "day stores" area in the kitchen or storage space in each work unit.

One entrance to the store room gives best control of food supplies. Keep the door locked except when receiving and issuing food.

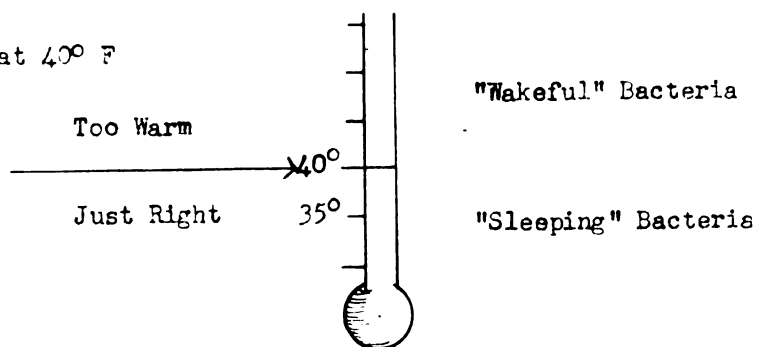
Make sure the storeroom is well lighted so that food supplies can be seen in all parts of the room.

STORING FOOD IN THE REFRIGERATOR

Much of the food you buy must be kept cold. Certain highly perishable foods such as fish and seafoods, ground meat, and fresh liver should be used within 1 or 2 days after purchase. Fruits and vegetables and cured meats are less perishable but will also lose their fresh qualities if kept too long. Remember, refrigeration only helps to retain the quality which is in the foods you buy. It does not improve the quality of food. The condition of the food when you buy it is important!

It is desirable to have 3 separate refrigeration units for (1) meat, poultry, and fish, (2) fruits and vegetables, and (3) dairy products and milk. The best holding temperatures range from 35° to 45° for these items. If you have only one reach-in refrigerated unit or walk-in refrigerator, keep the temperature at 40°.

Watch that temperature -- Life Begins at 40° F
for growth of bacteria.



STORAGE AT ZERO DEGREES & BELOW

The amount of frozen foods you buy depends on how much freezer space you have. Because of the convenience and labor saving features of frozen foods, more and more food services are providing storage for frozen foods. Processors, too, are encouraging the use of frozen foods in quantity food services, by providing institution size packaged products.

A small home-type freezer, either up-right or reach-in may be sufficient for your needs. If you use frozen food products extensively and anticipate greater future needs, a walk-in freezer may be required.

Remember, if you buy frozen foods, keep them frozen until you are ready to use them. You will be able to keep most foods in the freezer from 1 month to a year.

HOW LONG WILL IT KEEP?

This chart suggests how long food is likely to hold good quality if fresh and in good condition when refrigerated.

FOOD	Refrigerator 30° - 40° F	
	Kind of Wrapping	Will Keep
Fresh Meats:		
Whole cuts	Loosely wrapped	3 to 6 days
Portion cuts	" "	3 to 6 days
Ground meat	" "	1 day
Liver	" "	2 days
Variety Meats:		
Cold cuts	Wrap in semi-moisture proof such as waxed paper	6 days
Cured Meats:		
Bacon, sliced	Original wrapping	7 days
Ham, tender cured	" "	10 days
whole smoked	" "	3 to 6 weeks
Tongue, smoked	" "	5 to 7 weeks
Dried beef	" "	4 to 6 weeks
Corned beef	" "	6 days
Poultry	Wrap loosely	2 to 3 days
Fresh fish	" "	1 to 2 days
Milk & cream	Original container	3 days
Eggs	" "	7 days to 2 weeks
Cheese		
Hard		
Cheddar type	Tightly wrapped or closed container	2 to 3 months
Soft		
Cottage	Closed container	1 to 2 weeks
Cream cheese	Original wrap	

STORAGE OF OTHER PRODUCTS

Most fresh fruits and vegetables should be kept in the refrigerator at 45° F to preserve freshness and good eating qualities. Some fresh vegetables, however, keep well in a cool room. Potatoes, sweet potatoes, squash, and dry onions, for example, should be stored in a cool, dry, well ventilated room at 50° to 60° F. Refrigeration can be detrimental, especially to potatoes and sweet potatoes, because they will spoil more quickly and darken on the inside when refrigerated.

Although ripe melons, avacados, peaches, pears, grapes, and tomatoes should always be refrigerated and served promptly for good quality and flavor, store these foods in the unripe stage in a dry storage room at 65° to 75° F.

Never store bananas in the refrigerator. A temperature of 55° F or below will cause the skins to darken.

STORAGE OF "LEFT OVER" COOKED FOODS

If you frequently have a large amount of leftover cooked food, you are probably preparing too much food. Careful planning results in "coming out even" at the end of the meal. Refrigerate all leftover cooked food immediately, and plan to use it in some way within 24 hours.

Food spoilage is not always apparent at a glance. However, spoilage can usually be identified by discoloration, off-color, or by the presence of mold or soft spots of decay. Follow the rule, "When in doubt, throw it out".

placed in boiling water lower the temperature of the water. Cooking time is shorter when you use a steam jacketed kettle. When you cook vegetables on top of the range, cook a moderate amount at a time and repeat as needed during the serving period.

Cook vegetables a short time to retain food values. Fast cooking for a short time results in smaller losses of nutrients. Vegetables steamed for a short time in a high pressure steam cooker retain more nutritive value than those cooked a longer time in boiling water. But the high temperature of the pressure cooker may be destructive to the vitamins if the vegetables are over cooked. Consult the time schedules for the kind of equipment you use so that vegetables are cooked in the shortest time possible to make them just tender.

Don't cook vegetables at a "galloping boil" or stir them. Keep the water boiling gently to prevent breaking up the vegetables. Do not stir vegetables because this increases exposure to air and loss of some vitamins.

Cook vegetables whole or in large pieces to preserve nutritive value. Diced vegetables lose more minerals and vitamins during cooking than whole, halved, or quartered vegetables.

Cook vegetables in skins to preserve nutrients.

Cook vegetables just before serving. Holding vegetables in a bain marie or steam table after they are cooked or even letting them stand at room temperature increases loss of vitamins.

PREPARING CANNED VEGETABLES

Serving canned vegetables is not simply a matter of opening the can, "cooking" the contents and adding the seasoning. Canned vegetables are cooked sufficiently during the canning process. How unappetizing they can be when subjected to further cooking! To preserve the color, flavor, and nutrients:



1. Drain the liquid from the can, heat it to boiling.
2. Add the vegetable, butter and seasonings and heat, but do not overcook.

Note: For creamed vegetables, use the drained liquid with milk to make the cream sauce.

PREPARING FROZEN VEGETABLES

The fresh flavor of frozen vegetables is enjoyable when they are properly cooked. And so little time and effort is needed to produce a perfect product! Drop the vegetables, still frozen, into boiling salted water, and cook gently until just tender. The cooking time will be a little less than that for cooking fresh vegetables because there has been a short period of pre-cooking or blanching before freezing. Cook frozen vegetables in small quantities during the serving period to prevent over-production and leftovers.. Do not refreeze vegetables after they have thawed.

SEASONING OF VEGETABLES

Herbs and spices help to give vegetables a lift. Remember, however, to use a "light hand" with unusual flavors because their pungency may easily overshadow the delicate flavors of the vegetables.

Bits of crisp bacon added to canned vegetables will give a special flavor to mild vegetables. Chopped hard cooked egg sprinkled on cooked spinach adds not only flavor but color as well. Cook a small amount of minced onion or green pepper with snap beans or summer squash. Serve bright, buttered carrots piping hot with bits of sprightly green parsley. Cook a few mint leaves or pinch of herbs with green peas. A little vinegar is a popular flavor addition to cooked green cabbage. Lemon-butter provides a tangy flavor for mild flavored asparagus.

These simple seasonings involve small effort compared with the reputation-building results. You may be surprised to get requests for second helpings of vegetables from the people you serve!

SALAD PREPARATION

Salads are "tops" in eye appeal.



Although salads are easy to prepare, they should not be "thrown together". A mixed green salad may look casual, but it shouldn't be just a mixture of left-overs.

Wash greens thoroughly, but don't let any water remain on them when mixing the salad. Remove all rust, wilted and bruised parts. Make sure ingredients, salad bowls, and plates are chilled.

An important part of salad making is the dressing. Every ingredient of a mixed salad should have a thin coating, but never have a "pool" of dressing in the bottom of the bowl.

Commercial dressings are available, but you may wish to make your own distinctive

dressings using your choice of oil and spices. Imported olive oil has a rich flavor, peanut oil has good body and slight flavor, corn and cottonseed oils are almost tasteless, light in body, and make good bases for either French or mayonnaise. Light and dark cider vinegar and malt vinegar can be used for almost all dressings. Use tarragon and the red wine vinegars which have decided flavor for "special occasions" or as desired by patrons.

Combine salad ingredients and the dressing just before serving. If dressing is added too early, the salt and spices in the dressing will draw the juices out of fruits and vegetables and make the salad soft and unappetizing.

Vary the salad greens, too. Head lettuce is crisp and good to eat, but many other salad greens are attractive and some are richer in vitamin A.

Leaf lettuce is a good underliner for chopped salad.

Curly endive and romaine are deep in color and add flavor and texture contrast to tossed salads.

Watercress has a peppery flavor and a delicate green leaf that makes an attractive garnish for any fruit, vegetable, or meat salad.

Tender green spinach leaves or mustard greens, tapering leaves of swiss chard will add vitamin and mineral values.

Shredded outer leaves of cabbage are good underliners for cole slaw.

New leaves of broccoli and cauliflower may be shredded and added to cole slaw.

When you plan a new or unusual salad, demonstrate to the salad worker how you want it to look. Help her to make it look as good as it tastes.

Use a "stand up" garnish so that your salads will not look flat. A vivid carrot curl, for example, or tiny cubes of colorful cheese help to set up a tossed salad.

A slice of unpeeled red apple adds color and height to a fruit salad.

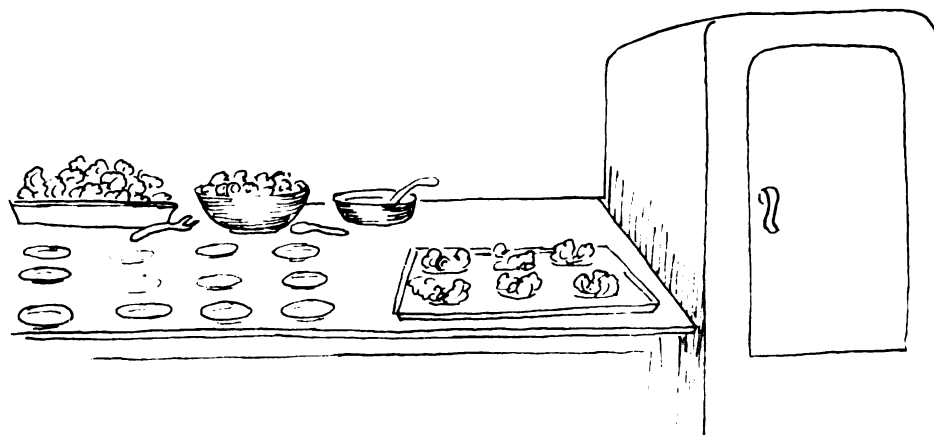
Plan gelatin salads only when it is possible to serve them attractively. Keep them chilled until immediately before serving time. Molded salads prepared in unusual shapes are especially attractive for special holiday meals. Gelatin stars or wreaths, for example, make "conversation pieces" on trays at Christmas time.

When making gelatin salads, allow enough time for "setting". This time can be shortened and the setting started sooner if only enough hot liquid is used to dissolve the gelatin. Add the remaining cold liquid to **cool the** gelatin quickly. Keep gelatin mixtures covered and refrigerated to prevent drying and thickening.

Always serve gelatin salads on chilled plates.

Heartier salads, such as meat, fish, egg, and potato, often provide the main dish of the meal. Prepare all the ingredients and store separately in the refrigerator. Mix just before serving and only enough for one meal.

Use an assembly line method of making individual salads. Don't make just one salad at a time! Assemble all the ingredients, necessary utensils, and plates or bowls. Your salad unit is best near the refrigerator so the made salads can be stored until serving and retain their crispness, attractive appearance, and flavor.



MILK COOKERY

Milk needs special care in cooking. To prevent scorching and curdling, heat the milk for soups, beverages, sauces, and desserts in a double boiler. When heating milk over direct heat, use a heavy aluminum utensil. Always cook milk dishes as short a time as possible. Avoid boiling foods which contain a large proportion of milk and do not allow them to stand on a steam table or in a bain marie or double boiler for long periods.

As a food service manager, you are concerned with serving high quality food at reasonable cost. Dry milk offers many advantages besides saving money on your milk bill. For example, dry milk can be purchased in any amounts required for routine food preparation and for special needs without danger of spoiling. Storing is no problem: nonfat dry milk can be kept safely at room temperature. After it is opened, it should be kept in a dry place with a tight fitting cover. Dry whole milk should be kept tightly covered in a cool place.

Dry milk is available as:

Dry whole milk in which only the water is removed from fresh homogenized milk.

Dry nonfat milk in which the water and butterfat are removed from fresh whole fluid milk.

Dry buttermilk made by drying the buttermilk resulting from churned sweet cream.

Dry milk may be made into liquid milk by combining it with water for use in soups, gravies, sauces, and custards. To reconstitute: sprinkle it on top of warm water and stir gently with a rotary beater or French whip until dissolved. Never add dry milk to boiling water or to a hot mixture.

Unless dry milk which has been reconstituted into fluid milk is used immediately,

store in the refrigerator as you would fresh fluid milk.

Dry milk is so easy to use in recipes for bread, biscuits, muffins, and cakes. Just mix in dry form with other dry ingredients. For uniformly good results, weigh the dry milk rather than measure.

For more information on the use, purchasing, and storing of whole and nonfat dry milk, write for a copy of Circular Bulletin 223, "Whole and Nonfat Dry Milk in Quantity Food Preparation", by Pearl J. Aldrich and Grace A. Miller. This bulletin is designed to help you understand the advantage of these products more fully and to show you how to use them in quantity food service.

Recipes for food items enclosed with the bulletin were developed by the Food Service Laboratory and tested in Michigan State University food units.

Send your request to the Bulletin Room, Michigan State University, East Lansing, Michigan.

Evaporated milk is whole milk with about half of the water removed. Mix equal parts of water with evaporated milk in recipes calling for whole fluid milk. It is economical to use evaporated milk in dishes whenever milk is required.

When preparing creamed soup or vegetable dishes, use the liquid from fresh or canned vegetables instead of water to combine with the evaporated milk.

For especially creamy sauces and custards, use milk just as it comes from the can.

Evaporated milk may be chilled thoroughly and whipped for toppings on puddings.

EGG PREPARATION

Eggs are among our most valuable foods because of their high nutritional value, versatility in cooking, delicate flavor, and availability.

Because of the ease with which eggs are prepared, they are often hurriedly cooked with too high heat. For optimum flavor and tenderness, cook eggs at low to moderate temperature. An egg fried at high temperature with hard and "horny" edges is tough and uninviting.

Overcooking and high temperatures used in egg-rich cakes and souffles will cause them to fall, have a thick outer crust, but a soggy interior. In dishes thickened with eggs, such as custards and sauces, high temperature and over cooking will cause them to curdle or become watery.

Eggs cooked in shell. The term "boiled" egg is disappearing from the menu vocabulary. Eggs, when properly cooked, should not be boiled. The proper term is hard cooked or soft cooked or "eggs cooked in the shell". The water must always be kept below the simmering point if the eggs are to be tender and the yolk clear and golden in color.

Eggs may be hard cooked in hot water on top of the range, in a steam jacketed kettle, or in an upright steamer.

COOKING EGGS IN STEAM JACKETED KETTLE

Place eggs in a wire or perforated container; then put the container in a kettle. Cover with cold water, one inch above eggs. Turn on steam, bring water quickly to boiling point. Turn off steam immediately and let eggs stand in water 15 to 20 minutes. Drain water from kettle. Run cold water over eggs at once to reduce the temperature quickly and prevent a dark green ring from forming around the yolks.

Leave eggs submerged in cold water 5 to 10 minutes before peeling or storing.

COOKING EGGS IN UPRIGHT STEAMER

Place eggs in solid container with cold water to cover. Place container in steamer and bring water to boiling point. Turn off steam immediately and allow eggs to stand in water 15 to 20 minutes. Submerge eggs at once in cold water.

Scrambled eggs. Scrambled eggs can be made in a double boiler. If you prefer to do them on top of the range in a skillet or on a griddle, turn the fire low and give them your undivided attention. If scrambled eggs in quantity are to be made on range top, it is best to use two frying pans instead of cooking the entire amount in one pan.

Poached eggs. Put about two inches of water in shallow pan and bring to boil. Reduce heat to hold at simmering. Slip eggs into the water, one at a time. Cook three to five minutes depending on the desired firmness of the yolk.

Baked or shirred eggs. Break eggs into greased individual baking dishes. Bake at 325° F for twelve to twenty minutes depending on desired firmness. Serve in baking dish. You can break eggs into greased muffin tins, add one tablespoon milk to each egg, dot with butter, season, and bake as above.

Souffles. Souffles are easy to make if a few basic rules are followed. Beat egg yolk and whites separately; be sure the whites are stiff, but not dry. Use an ungreased pan so that the souffle can cling to the sides of the pan and rise to its full height. A slow over, 300° - 350° F is essential.

Meringues. Hard meringues or meringue shells are used as a basic ingredient in many desserts and to add a touch of glamour to others. Care must be taken in blending and baking.

Soft Meringues. Use egg whites at room temperature and add a small amount of salt to increase the volume and make the meringue stiffer. Gradually fold in two tablespoons sugar for each egg white after the whites are stiffly beaten. Too much sugar results in gummy and sugary meringue, too little will give meringue less volume and fluffiness and less tenderness. Beat until air cells are fine, and rounded mounds are formed when the beater is lifted out of the mixer. Overbeating will cause shrinkage. Spread meringue on cream pie fillings while the filling is still quite warm; spread to edge of crust to protect filling from overheating. To prevent shrinking, weeping, or toughness, bake carefully. Best results are obtained when meringue is baked at 425° F for four to five minutes, or 375° for ten to twelve minutes.

When combining hot mixtures and beaten eggs in custards, souffles, and cream fillings, fold hot mixture slowly into beaten eggs.

Eggs beat to larger volume if first brought to room temperature. Separation of yolks and whites is easier if you remove eggs from refrigerator 45 minutes before using.

Left-over egg whites may be stored in a tightly covered jar in the refrigerator. Place left-over egg yolk in a jar with enough water to cover. Put lid on tight and store in refrigerator.

Egg dishes are more palatable and attractive if served on warm plates.

EGG AND MILK DESSERTS

Popular variations of these desserts include: custards, custard-type puddings, fruit souffles, rice, tapioca, and cornstarch puddings. The basic principles of milk and egg cooking are applied to the preparation of these desserts. If you use prepared mixes for these desserts, be sure to follow directions for best results.

Many of the distributors of these dessert type mixes have recipes available on request.

CREAM FILLINGS FOR PIES AND CORNSTARCH PUDDINGS

Cream fillings should be perfectly smooth with all the ingredients blended so well that there is not the faintest suspicion of lumpiness and no raw "starchy" flavor. This is done by using the exact proportions of flavor and cornstarch called for in the recipe, cooking the mixture carefully in a double boiler, and stirring constantly until it thickens.

When eggs are used for thickening in pie fillings and cornstarch puddings, cook the flour and cornstarch mixture until it thickens, let cool for four or five minutes, then add the eggs. Flour and cornstarch do not reach the full degree of thickening until heated to the boiling point; eggs cooked at this temperature may curdle in the mixture. After the eggs are added, reheat the mixture slowly, but do not heat to the boiling point.

Note: Never hold cream pies at room temperature. Don't plan to serve them unless you have sufficient refrigeration space to hold until serving time.

SOUPS: CREAMED AND MEAT STOCK

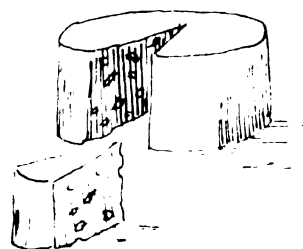
Creamed soups should be the consistency of heavy cream. Use the principles of milk cookery for good results. Add cooked or canned sieved vegetables, fish, or chicken for flavor.

Meat stock is made by simmering cracked shank bones and water together for several hours to extract the flavor. A good proportion is five pounds of bones and meat

to one gallon of water. Chicken stock is made in the proportion of three gallons of water to a three or four pound fowl. Always cool the finished stock and refrigerate so that the hardened fat which forms on the top can be removed. Use the stock with the addition of rice, noodles, or vegetables for appetizing and nourishing soups.

CHEESE COOKERY

Cheese is an ancient food. Its use and development is woven into the history and economics of all the peoples of the world. In Biblical times, it is told that the boy, David, carried "ten cheeses to his Captain as the finest of delicacies".*



Cheese is one of the most nourishing foods. It contains many of the elements of milk in concentrated form. American cheddar or processed cheese is the most frequently used in cooking.

Always use low heat in cooking cheese to prevent toughness and stringiness.

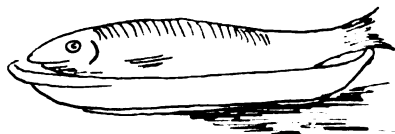
Grate, shred, or cut cheese into small pieces to speed melting and blending in sauces.

Grated cheese makes an excellent topping for casserole dishes. Add grated cheese to muffins, biscuits, pie crust, and pastry for flavor and food value.

* "The Romance of Cheese", by Kraft Cheese Company.

FISH

Whether the fish is fat or lean determines the method of cooking. As a rule, fat fish are baked or broiled, because their fat content will keep them from drying out.



Lean fish, such as cod and haddock, are often boiled or steamed as the flesh is firm and will not fall apart easily during cooking.

Both lean and fat fish are suitable for frying. Lean fish, such as halibut, when broiled or baked will have a tendency to become dry unless basted frequently with melted fat.

It is important to remember fish is easily overcooked. Fish has no connective tissue and is naturally tender. Cook only a short time at moderate temperature until the fish will flake easily. In this way, the fish will be moist and tender and retain its delicate flavor.

Baked fish. Brush pieces of fish with melted fat and place on well oiled baking sheet. Bake in moderate oven (375° F) until fish is well browned, about 15 to 20 minutes. If desired, fish may be rolled in well seasoned bread crumbs before baking.

Broiled fish. First wipe fish dry and season. Brush fish with fat before broiling and grease the broiling pan to prevent sticking. Place portions of fish skin side down on pan about two inches from heating unit. When fish is well browned on one side, turn carefully and brown other side. Five to eight minutes is required for small fish, 15 minutes for thicker fish.

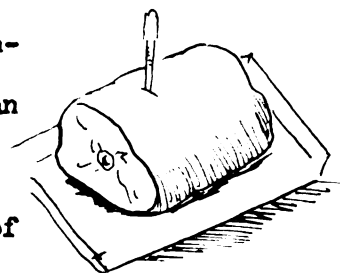
Poached fish. Place fillets or portions of fish in boiling salted water. Lemon juice or other seasonings may be used. Reduce the heat and simmer for about 20 minutes. The time will depend on the thickness of the fish.

Oven fried fish. Dip portions in milk and roll in seasoned bread crumbs. Place in well greased shallow baking pan and dot with melted fat. Bake at 450° F for 10 to 15 minutes until fish is tender and brown.

MEAT COOKERY

What counts most in meat cookery is the palatability of the meat when it reaches the patient. The results of using low temperatures for all meat cookery from stewing to roasting and broiling have given cooks an appreciation of how tender and savory meat can be. Roasting of tender cuts at low temperature, uncovered, makes basting a long-gone practice. When roasts are prepared in this way, the juice stays in the meat instead of seeping gradually into the pan. Roasts "glisten" with juice as the carving knife cuts off slice after tender slice. Moist-cooked stews and pot roasts are fork-tender, yet hold their shape.

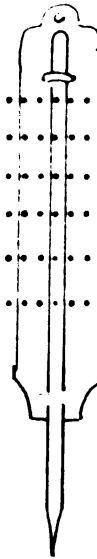
Much of the credit for better standards of meat cookery can be given to improvement in ovens and ranges and steady controlled heat. Thermometers are food savers. They can mean the difference between food that is overcooked and food that is just right. Thermometers take the guesswork out of meat cookery. A meat thermometer which tells the internal temperature of the meat is the only accurate means of determining the doneness of a roast.



ROAST MEAT THERMOMETER

Fahrenheit

Pork	185°
Lamb	180°
Veal	175°
Beef--well	170°
Beef--medium	160°
Beef--rare	140°



Even if you have an oven thermostat or temperature control, it may not be accurate. Make sure that your oven temperature control is checked regularly.

Tender cuts of meat are best cooked by dry heat in the oven, broiler, or on a griddle.

Steps in Roasting

1. Place meat fat side up in an open shallow pan. The roast will baste itself from top.
2. Season with salt and pepper
3. Do not add water and do not cover.
4. Roast at constant temperature 300° F. Low temperatures reduce shrinkage. Fresh pork should be roasted uncovered in an oven at 350° F.
5. Roast only to desired doneness (your meat thermometer will tell you).

Steps in Broiling

1. Preheat broiler.
2. Place meat on rack in broiler; thin pieces of meat two inches from heat, and thick pieces three inches.
3. Season browned side and turn to finish cooking. Regulate cooking so that meat is browned by the time it reaches the desired degree of doneness.

Steps in Simmering or Stewing

Less "choice" cuts of meat are made tender by moist heat, surrounded by liquid or steam.

1. Cover meat with liquid (may be hot or cold). Covering assures uniform cooking.
2. Season with salt and pepper and herbs if desired.

3. Cover kettle and simmer only until tender.

Steps in Braising

1. Dredge pieces of meat with seasoned flour.
2. Brown pieces of dredged meat in small amount of fat.
3. Add small amount of liquid. You may use meat stock, milk, sour cream, or tomato juice.
4. Cover with a close fitting lid to retain steam. Cook slowly until meat is done.

TO THAW OR NOT TO THAW -- MEAT

You may have determined your preference to this question through experience in handling solid frozen meat.

Research departments of well known meat processing companies, colleges, and universities have conducted studies to determine differences in taste and nutritive value of meat cooked while frozen and when cooked after being completely thawed. These studies show that there is no great difference in taste, but there may be vitamin losses in the drip, when meat is allowed to thaw before cooking. The nutritive loss in the drip is greater when meat is allowed to thaw at room temperature than when thawed in the refrigerator.

In addition to the loss of food value in the drippings, thawing meat at room temperature should be discouraged because the outside thaws more quickly and spoilage may set in before large pieces are completely thawed on the inside.

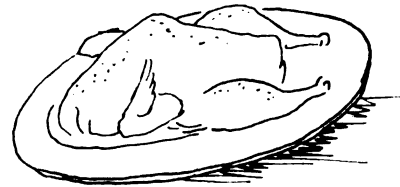
Large roasts require four to six hours per pound to thaw in the refrigerator. Steaks approximately one inch thick require about twelve hours.

Hard frozen meat will require about twice as many minutes per pound to cook as fresh meat, but there is usually less shrinkage. Large roasts cook more evenly if thawed before cooking.

Chops which are to be breaded, or chicken which is to be dipped in batter should be thawed before cooking because crumbs, egg-dip, and batter will not adhere well to frozen meat. Small pieces of meat used for stews need to be thawed so they can be separated, dredged with flour and browned. Turkey or other poultry must be thawed before deboning.

POULTRY COOKERY

The age of the bird determines the method of cooking. Young chickens may be cooked by dry heat such as broiling, frying, or baking. Older chickens require moist heat and longer, slower cooking methods such as braising or steaming. You may use a combination of moist and dry heat for the older birds. Stew or steam until almost tender and then roast in the oven.



Standards for poultry compare with those for meat. For good eating quality, your roast chicken and turkey must be plump and tender, but not so tender the meat falls from the bones. When poultry is roasted uncovered at low temperature, the meat "bastes" itself and retains the savory juices.

Roasting. Place fowl on a rack in a shallow pan, and roast in moderate over 300° - 325° F. Do not sear. It is not necessary to add water to pan. It is not necessary to cover the pan; use a piece of cheesecloth with fat if desired.

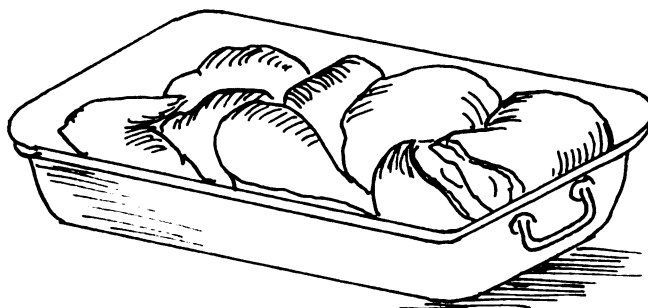
Season the inside of fowl to be roasted; salt on outside may cause the skin to blister.

Braising. Cut fowl into serving pieces and dredge with seasoned flour. Brown in small amount of fat. Add about 1/4 cup water for each bird, cover the pan tightly, and cook over low heat until the meat is tender. You may also cover the pan containing the browned pieces and cook in a moderate oven 325° F for 1-1/2 to 3 hours, depending on the size and age of the fowl. Add water in small amounts during cooking if necessary.

Stewing. Place disjointed or whole chicken in pot and barely cover with water and add salt. For additional flavor, add a little onion, celery, or carrots. Cover the pot and simmer gently until meat is tender. If you can pierce easily the thickest part of the thigh and breast with a fork, the chicken is done.

Turkeys to roast or broil, large or small, are abundant. Modern cooks are learning to debone large turkeys--the larger the better for yield--and roast the cut up pieces. They claim greater yield and pound for pound the cut up pieces cook in half the time required for oven roasting whole birds. With a little practice you, too, can learn to cut up and debone an entire turkey in minutes, although your first attempt will take considerably longer. Begin with a large eviscerated tom turkey weighing 22 pounds or more.

* Greater yield of cooked meat, saving of oven space, and a shorter cooking time are advantages of roasting cut-up Turkey. A shallow pan is used without oils or fat.



* National Turkey Foundation, Mt. Morris, Illinois.

If you roast your turkey the good old way with the stuffing inside, stuff the bird just before you put it in the oven --- never the day before. As soon as the serving period is over, scrape out any left-over dressing from the inside of the bird and store separately in the refrigerator. Remember to let the turkey stand 20 minutes before carving. You will get neater slices.

Frozen turkey, like any dressed or ready to cook poultry, is perishable. Keep in mind the following:

1. Thaw turkeys before roasting to save cooking time.
2. Thaw turkeys in their wrappers in a refrigerator or cold storage room at 40° to 45° F. Allow two days for thawing large birds and one day for small birds. An eight pound turkey may be thawed in this way overnight.

Do not thaw large birds at room temperature or in a hot kitchen as spoilage may have begun by the time they are thawed.

3. Do not stuff the bird unless it is to be cooked immediately.
4. Put left-over cooled turkey in the refrigerator immediately after serving period.

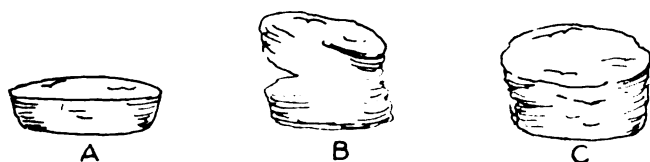
Tender bits of cooked turkey may make a second appearance in tempting thrifty dishes. Do not hold left-over turkey more than one or two days.

QUICK BREADS, MUFFINS, AND BISCUITS

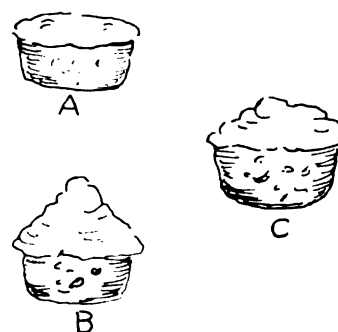
Hot breads, hot from the oven, add an element of specialty to any meal at any time of day. Many variations can be made from a basic mix. There is a special technique

in mixing.

Just the right amount of gentle kneading makes light, flaky, perfectly shaped biscuits as in C. Too much handling produces the poorly shaped product in B, and insufficient mixing makes them small and compact as in A.



The secret of tender, well formed muffins as in C is to combine liquid and dry ingredients until the flour is barely dampened, so that bits of flour are still visible. Fill tins 2/3 full. Undermixing results in A, and over-mixing muffins produces B.



By nature of their name, hot breads are easy and quick to make as they require no rising period and depend on baking powder or soda for leavening. Take advantage of their versatility and serve these popular foods often.

Keep in mind the importance of baking powders in all your baking. The tartrate type which is "single acting" begins releasing gas at room temperature as soon as it comes in contact with moisture. The phosphate type, also "single acting", begins releasing gas when moistened at room temperature, but is not as fast acting as the tartrate type. The third type is "double acting" baking powder which combines phosphate and sodium aluminum sulphate (S.A.S.). The phosphate begins producing some gas at room temperature and the latter releases gas when the batter is heated. Since much of the gas may be lost from the batter by mixing or stirring, work quickly when you are using the fast-acting types of baking powder.

Considering the differences in the behavior of these baking powders, you can see why you can't use different types interchangeably without making some changes in the mixing time of batters. These proportions are given specifically in all recipes. By following directions, you will find that perfectly good products can be made with all three types of baking powders.

SANDWICH MAKING

Do you ever wonder how the ever-popular sandwich originated? Once upon a time, we are told, there lived a great gambler. He stayed at the table for days and nights on end, and refused to leave the table even for food. He had hunks of meat brought to him which he placed between two chunks of bread, so he could eat with one hand and continue gambling with the other. This lusty gambler was the Earl of Sandwich and to him is given the credit for inventing and naming the sandwich.

USE EFFICIENT METHODS FOR MAKING MANY SANDWICHES

When making sandwiches, allow plenty of work space. Use a clean table top. Use good organization and good production methods. Don't make one sandwich at a time! When making 50 or more sandwiches, have two people working together as a team -- one to lay the bread in rows on the table, and one to spread the bread with butter and sandwich filling.

Soften butter used in sandwiches for easy spreading. Place the desired quantity in a bowl and leave it in a warm place until it can be stirred with a wooden spoon, or if a large quantity is needed, cream it in a mixing machine. Use a short spatula for spreading. It's easier than using a knife.

All kinds of enriched or whole grain breads are perfect partners for nourishing

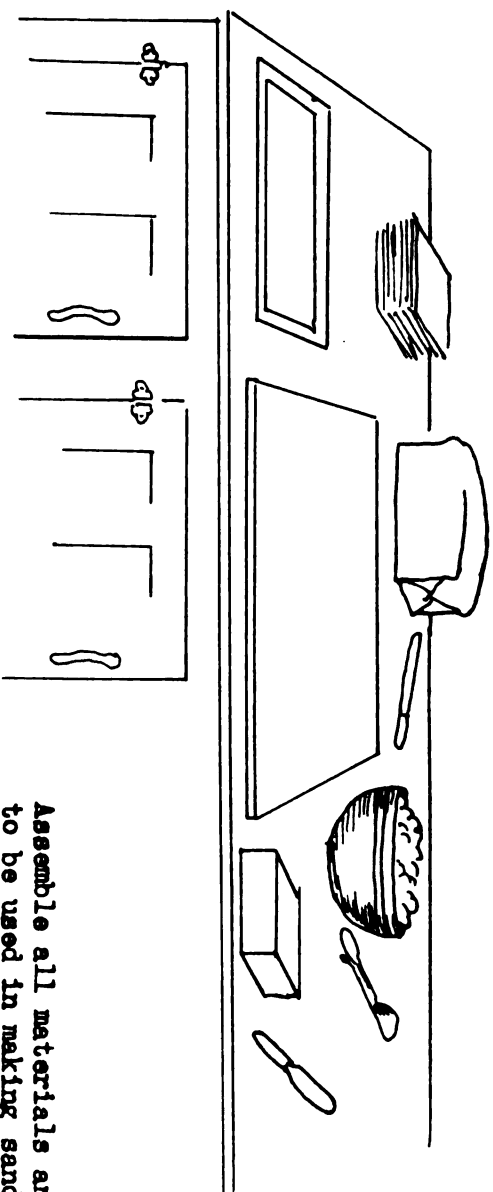
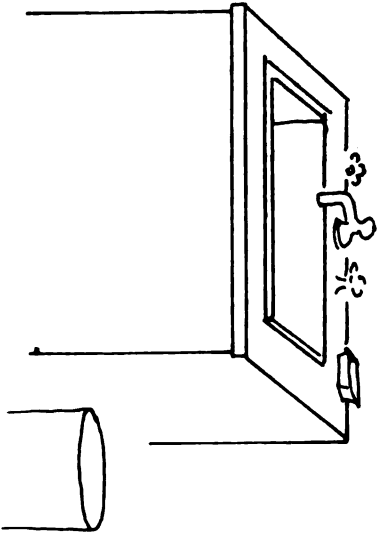
high **protein** fillers. The round and long buns, usually associated with "hamburgers" and **hot dogs**" provide attractive carriers for unusual fillings.

Remember, the filling is important. If it is a mixture, combine with care and **refrigerate** until ready to use.

Sandwiches may be served hot or cold, open faced or closed. Among the hot sandwiches are the **ever** popular and versatile hamburger, the grilled cheese, and hot sliced beef, **turkey**, or chicken. Note: For more information regarding sandwich making write for **"A Manual for Quantity Sandwich Production"**, prepared by Consumer Service Department, American Institute of Baking, 400 E. Ontario Street, Chicago 11, Illinois.

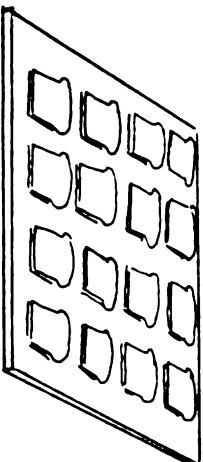


SANDWICH MAKING

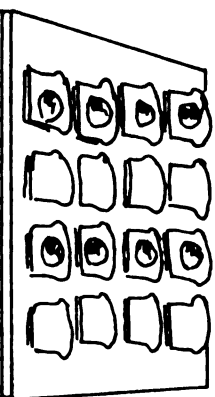


Assemble all materials and utensils to be used in making sandwiches.

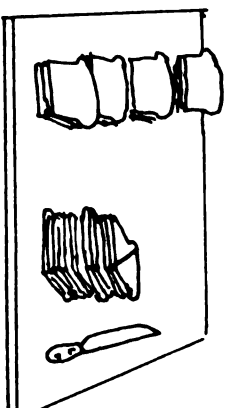
Equipment and Materials



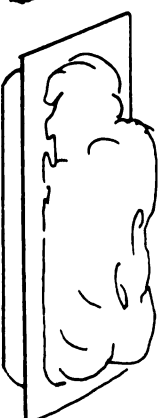
I



II



III



IV

Place loaf on side and open wrapper at seam. Put wrapper at left of work surface along with clean covering cloths or towels. Place 16 slices of bread on cutting surface.

Spread bread with softened butter; using spatula, start in upper right hand corner working to left. (DO NOT PICK UP EACH SLICE OF BREAD). Place a scoop of filling on every other slice of bread. Spread with spatula.

Cover each filled slice with a plain slice.

Stack each row of sandwiches and cut.

Slide knife under stack. Hold top of stack with left hand and transfer to service tray. Cover with bread wrapper and clean damp cloth. Place in refrigerator until serving time. Serve with tongs.

USE TESTED AND PROVEN RECIPES

Have you ever heard someone say, "My grandmother was a good cook, but she never used a recipe"? Grandmother did turn out light-as-a-feather cakes, but her techniques were suited to her equipment, ingredients, and family needs. If we tried to reproduce those foods today, the results would be disappointing.

In the home, it is possible for one person to turn out a delicious dish without a written recipe. A large food service, however, would be greatly hampered, if the preparation of good food always depended on having the one and only person in the kitchen who could do it.

Today's cook no longer keeps recipes in her head, nor uses "any old dish" for measuring. Her tools are standard measuring cups and scales, and oven heat controls. All measurements are level.



The use of tested recipes takes the "guesswork" out of quantity food preparation. They are as essential as a good range. They are useful to the experienced cook, and can even make an "expert" out of a beginner. Tested recipes are also useful in determining how much food to purchase and prepare.

Simple multiplication of a household recipe cannot always be counted on to give a desirable product for quantity service. The relative proportion of ingredients might be wrong, the mixing time too brief, and the amount of yield disappointing.

STANDARD RECIPES

Use recipes that give complete directions and eliminate all the guesswork in food preparation. Most food service managers and cooks like to record their own

favorite recipes. Whether you keep recipes in a large file box, notebook, or card file drawer, it is best to file them according to classes of food, as main dishes, salads, desserts, etc. Always keep the master file of all recipes in one place, preferably at the menu planning center. Duplicate copies can be made for the baker or salad workers.

The recipe size and form you use will depend upon your own preference. In any case choose a size large enough to contain all of the necessary information and a form that is easy to read. The information on each recipe should include:

Amount of every ingredient in weight or measure.

The size, shape, and type of pan to be used.

Cooking or baking temperature and approximate time required.

Total yield and size of each portion.

Method of procedure.

Total cost of recipe.

A SUGGESTED SAMPLE OF RECIPE FORM:

LEMON COCONUT CAKE

Sheet or Layer

Cut: 6x8/sheet or 16/2-layer
Portion: 2-3/4"x2" piece or 1-3/4" wedge

Oven 350° F. Bake (sheet 35-40 min.
(layer 20-25 min.

INGREDIENTS	Yield: 2 sheets or 14 layers		PROCEDURE
	Weight	OR Measure	
Hydrogenated fat Sugar	1 lb. 14 oz. 3 lb.	3-3/4 cups 1-1/2 qt.	Use mixer with paddle attachment. Blend on 2nd speed 5 min.
Whole eggs	2 lb.	1 qt.	Using 2nd speed, add and mix 5 min. Scrape down thoroughly.
Cake flour Baking powder double action Salt Nonfat dry milk	2 lb. 12 oz. 1/3 cup 2-3/4 tsp. 4-3/4 oz.	2-3/4 qt. sifted 1/3 cup 2-3/4 tsp. 1 cup*	Blend together with French whip.
Grated lemon rind Lemon extract Water	1 tsp. 3-1/4 tsp. 3-3/4 cups	1 tsp. 3-1/4 tsp. 3-3/4 cups	Using 1st speed, add alternately with combined dry ingredients. Blend 5 min. on 2nd speed. Scrape down twice during this process.
Coconut	11 oz.	1 qt.	Chop fine. Add to batter on 1st speed. Mix just enough to blend. Pour into cake tins, greased on the bottom.
TOTAL WEIGHT		12 lb. 11 oz.	6 lb./22x13x2" sheet. 14 oz./9" layer, 1" deep. BAKING DIRECTIONS ABOVE.

* Stir before measuring.

Chapter VI

FOOD SERVICE

"He Who Serves Best Profits Most"

"Well cooked and attractively served meals are just as important a part of treatment as careful nursing and skilled medical attention", is a statement often made by physicians. All of the preliminary work of menu planning, food purchasing, and preparation is not evident to a patient. He can judge the results by the food on his tray.

Meals in the hospital are important events of the day. In addition to providing nutritious food, the appearance of the tray should be a pleasurable event. The tray service continues to be important until the end of the patient's stay and leaves a lasting memory even after other phases of his treatment have faded from his mind.

TRAY APPOINTMENTS

Insisting on perfection in details of the tray service is important not only to the patient, but also for the good will of his relatives who feel justified in "speaking freely" on his behalf. Excellent or unsatisfactory tray service is a subject of conversation which goes far beyond the front door of the hospital.

Tray covers with attractive or amusing designs or printed messages give the patient assurance that you are interested in his welfare. Holidays provide opportunities to "dress up" the tray with interesting decorations. Foods associated with national events or occasions add a special element of surprise. Who does not appreciate a birthday card or small birthday cake?

Attractive china adds considerable enjoyment to the one receiving the tray. Dishes for hot food should be warmed, and those for cold food should be chilled.

ARRANGEMENT OF TRAYS

Often a sick person is acutely aware of a carelessly set up tray. Always arrange the required items such as salt and pepper, sugar bowl, silver, glassware, napkins in the same place on the tray to make it easy for the server to see at a glance if anything is missing and to help the patient to find them.

The tray should be large enough so that it does not appear crowded with the necessary china and silver. If you use paper tray mats, see that they are fresh and clean, smooth and wrinkle free, and just the right fit for the tray. Spilled liquids give an untidy appearance and make the food look downright unappetizing. Take precautions to avoid spillage by having well-designed containers for all liquids.

Give careful consideration to the arrangement of foods on the main plate. A sprig of fresh parsley will dress up an economy dish or colorless food. Colorful vegetables add interest when served on the main plate. Stewed tomatoes or creamed vegetables that have a tendency to spread are better served in individual dishes.

When serving soup, do not fill the bowls so full that the contents spill. When possible, cover to keep hot.

Fill cups and glasses to within 1 inch of top. When liquids are served, don't use the receptacles used for medicines. The association of ideas is strong enough to destroy the patient's appetite.

Coffee, tea, or other hot beverage should be the last item placed on the tray.

Individual pots are best for keeping beverages hot.

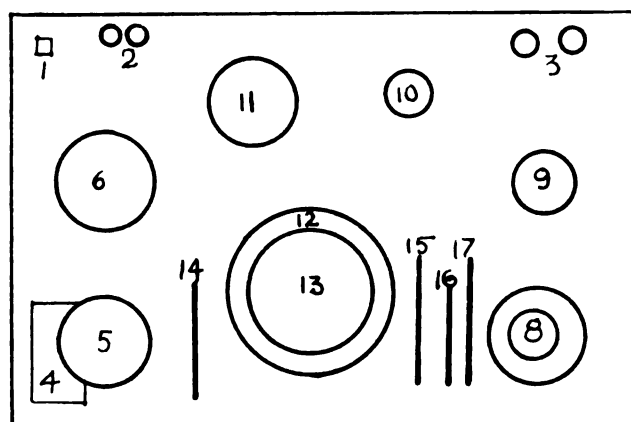
Diagrams showing the desired placement of items on the tray are helpful to workers, particularly new employees. The kind of meal, number of menu items, and type of dishes will affect the number of items on the tray.

Suggested arrangement for trays:

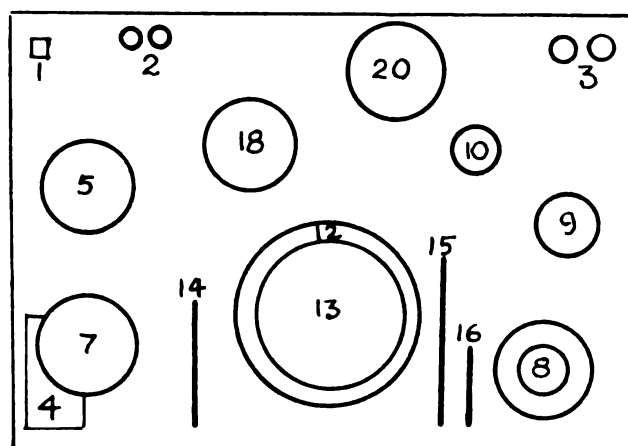
Key:

Breakfast Tray

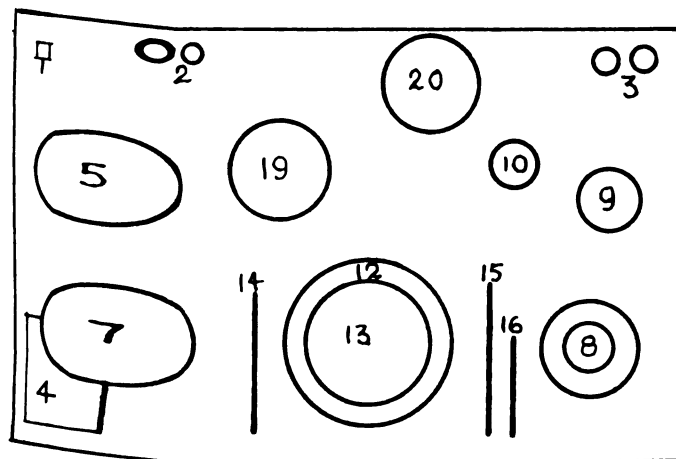
1. Tray card holder and card.
2. Salt and pepper.
3. Sugar and creamer.
4. Napkin.
5. Bread and butter plate.
6. Cereal bowl.
7. Salad plate.
8. Cup and saucer.
9. Coffee or tea pot.
10. Beverage or fruit glass.
11. Breakfast fruit plate.
(if juice is not served)
12. Main dish plate.
13. Plate cover.
14. Fork.
15. Knife.
16. Spoon.
17. Cereal spoon or dessert spoon.
18. Vegetable dish.
19. Soup bowl.
20. Dessert dish.



Dinner Tray



Supper or Luncheon Tray



TYPES OF SERVICE

Smaller institutions seem to do well with centralized service in which all trays are assembled at one place and sent to the patients by dumbwaiter or tray truck.

Although central service is often recommended in a larger hospital, decentralized service is most effective in getting hot food to patients. Hot foods are sent in bulk in heated food trucks to the serving units, and served on previously assembled trays.

In either system there is an assembly job to be done. For central service, the assembly unit should be located near the range. For decentralized service, the assembly facilities should be set up in the area where trays are completely assembled. Many minutes and steps can be saved by having essential supplies and facilities conveniently located.

METHODS OF ASSEMBLING TRAYS

The assembly line methods used in industry have not come about by chance. These methods were developed by "experts" to produce a large amount of work efficiently, with the least human effort, in the shortest possible time.

In the home, food is usually cooked just before it is served and put on the table as soon as possible. In institutions, the distance between the range and the "table" is greater, and the number of people to be served prolongs the serving period. Even the best prepared food will lose its "appeal" if the serving is delayed. One of the ways, then, of producing the ideal "home cooked" meal is to reduce as much as possible the period between preparation and serving. This can be achieved by careful planning, efficient methods, and cooperation of workers. Why not try "streamlining" your assembly methods, as industry has?

Date _____

FOOD SUMMARY FOR COOK

Hot Foods

No. Serv.

Cold Foods

No. Serv.

Breakfast

Dinner

Supper

Note: This summary sheet should contain record of all food needed for the entire day for all general and modified diets. This eliminates last minute confusion.

Because of the present trend to use as much food as possible for "special diets" from the general food preparation, modified diets can be assembled and distributed along with the general tray assembly.

"SERVICE WITH A SMILE"

Make the most of good human relations when serving trays. As the tray is presented, focus attention on the patient; make it a friendly, happy occasion. Courtesy and kindness are appreciated as you play host to the patient three times a day.

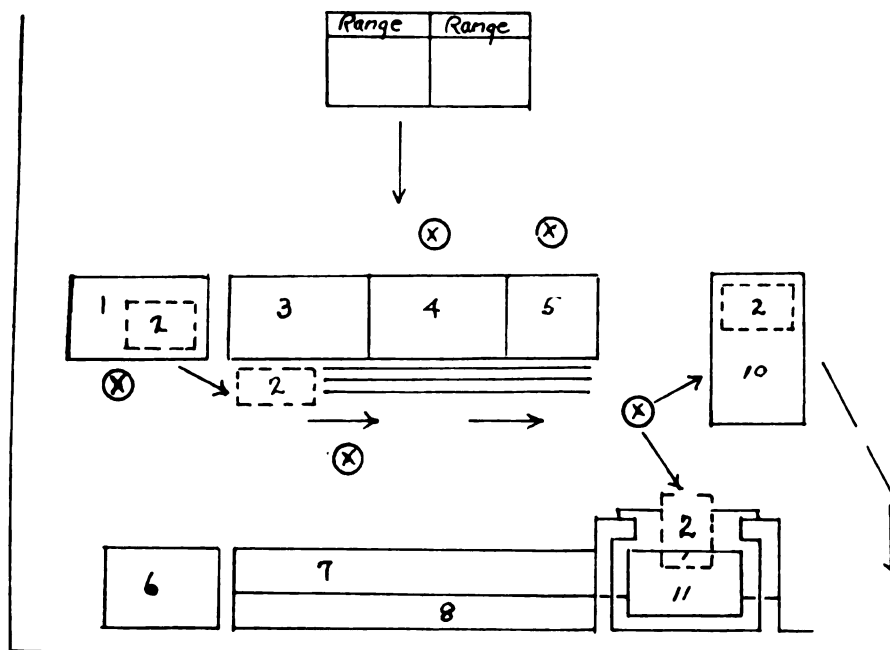
Strive for complete cooperation with the nursing department in having the patient properly prepared for his tray, so that a minimum of time elapses between preparation and serving. Establish the best routines for your institution by mutual agreement with other departments in the best interest of the patients.

Let the nursing department know what time trays will be served. Always serve them on schedule. If an emergency arises and you know the patients' trays will be delayed, be courteous enough to let the nursing department know so they can plan their own work accordingly.

Be sure your trays are an asset. Don't waste hours of work in planning, purchasing, and preparation by serving the food "any old way".

Arrange your time so that you can observe and check trays as they are sent to patients. Ask yourself, "Would I be satisfied to have this tray served to me?"

SUGGESTED SET UP FOR CENTRAL SERVICE



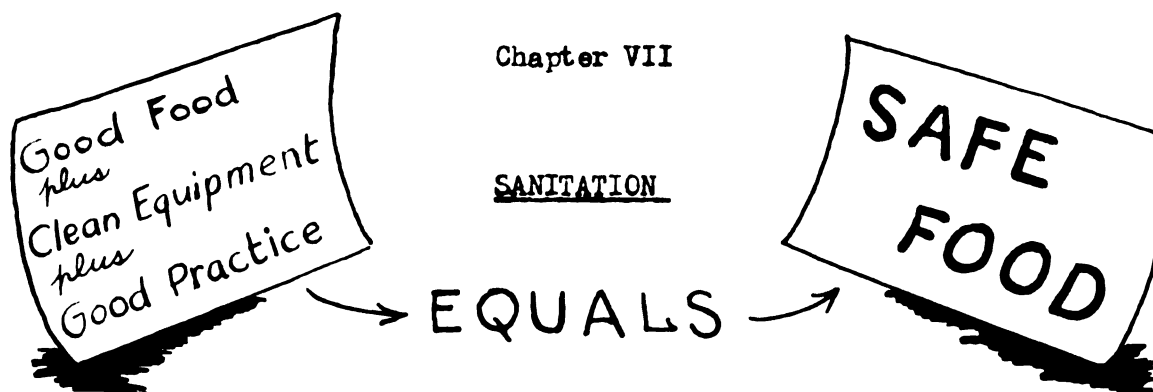
1. Tray make up table
2. Tray
3. Cold food
4. Hot food unit
- X. Worker
5. Coffee service (and tea)

6. Refrigerator
7. Counter or table
8. Wall cabinet
9. Tray slide
10. Tray truck
11. Dumbwaiter

Note: This method eliminates the necessity of having trays made up hours before serving time.

The secret of a well organized tray service is having all the food ready at the right time. A food summary for the cook and other employees responsible for preparation and service, will help them to make certain all food has been prepared.

The food summary can be made up each morning from the daily menu and the number of servings determined from patient and employee census record.

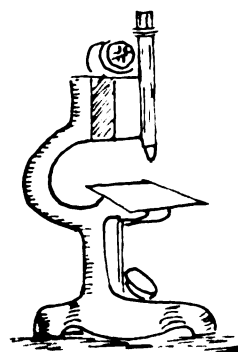


What does sanitation mean to you? To many it means clean, sparkling surfaces on work tables and a shiny, well swept floor. To others it means stainless steel equipment, an up-to-date dishwashing machine or a modern refrigerator. To some it means good practices of food handlers in preparing food.

Sanitation means all of these things. Sanitation is more than surface cleanliness. Sanitation is the lack of accumulation of dirt in corners and crevices. It is protection from bacteria which can't be seen, but which may result in illness known as "food borne infection or poisoning". Sanitation is not accidental. It is the result of constant supervision and use of safe practices carried out by all food service employees.

Occasionally we learn about large groups of people becoming ill, a few dying, as the result of eating food served at a community picnic, a church supper, a large sports gathering, or even a hospital. Some claim the frequency of these outbreaks is a national disgrace, because they can be eliminated by the use of strict rules of sanitation and the use of standards which become a part of "a way of life".

To bring about adequate food protection you must accept certain facts that have been proved by laboratory tests. These facts include the effects of germ life, insect and chemical contaminations, and other harmful material. Many of these things we cannot see or feel or smell. You



must be alert to detect foreign objects which may fall into food, such as hair, dust, bits of broken china and glass.

Diseases such as sore throat, common cold, jaundice, tuberculosis and others can be transmitted through food. The germs which cause these diseases are living plants. But they do not thrive on water and sunlight as other plants do. They like the foods we eat. Where do they enter the body? Through the mouth. How do they get into the mouth? Through contact with foods, cups, knives, and forks. They are spread by coughing and sneezing; they travel from mouth to hands to foods. The GROWTH of these germs can be stopped by refrigerating foods at 40° F. They can be KILLED in a few seconds with 143° F temperature. They can be PREVENTED from spreading only by safe practices of food service personnel, and by using clean utensils.

The most common cause of "food poisoning" is the germ called staphylococcus. This bacteria lives in the skin, nose and throat, pimples, boils, and infected cuts and sores. When this bacteria gets into food, it sets up its own secretion or "toxin" which is poisonous to humans. If the food containing the toxin is eaten, the illness which results is called food poisoning. Almost all foods have been found to be possible sources of food poisoning, if improperly handled, but the most suspected are: cream pies, custards, dressing, fish, fowl, salad dressing, potato salad, deviled eggs, tenderized ham. The foods which require cutting or slicing that come in contact with the hands are the most apt to be contaminated. This germ itself is destroyed by exposure to 143° F temperature for 30 minutes. Cooking at this temperature, however, never destroys the poison the germ produces. Don't allow cooked food to be recontaminated from sneezes, dust, or flies. Refrigerate soft filling pies until ready to serve. The bacteria will be so cold they will be unable to form their poisonous toxins. You can PREVENT staphylococcus food poisoning by:

Keeping hands out of foods

Using clean utensils

Keeping the foods HOT or COLD depending on how
they are to be served.

Another food borne infection is caused by a family of germs of the intestinal tract called "salmonellae". They are usually spread by persons who are infected with the germs without knowing it, or they may come from infected animals or poultry. The germs may be introduced into food by failure of food handlers to practice good hand hygiene. Heating food to 143° F for 30 minutes will kill the germs, or holding foods below 50° F can slow down their rate of growth so that they may not develop in numbers sufficient to cause sickness.

Botulinus is the most feared of the toxin producing bacteria. It is most often found in non-acid foods that have been canned at too low temperature. Don't use any home canned product unless you know it has been processed in a pressure cooker. Do not taste or serve any portion of non-commercially canned foods until they have been boiled 15 minutes. Commercially canned products are safe because they have been processed under rigidly controlled conditions and at temperatures which destroy bacteria.

Whether germs come from flies, insects, or humans, the story is the same. The germ itself may be poisonous or it may produce its own toxin which is equally poisonous. Your job is to keep germs out of food, for your own protection and for those you serve.

THE FIVE FUNDAMENTALS OF SAFE FOOD SERVICE

1.

Clean Hands:

Wash hands well with soap and water before starting work, and after using the toilet.

Don't handle food if you have a boil, cut, or burned finger.

Cover coughs and sneezes with a tissue and wash hands immediately after.

2.

Clean Dishes and Utensils:

Use only clean pots and pans. Keep them in good repair.

Don't use cracked or split boards and tables, or chipped utensils or dishes.

Take apart and thoroughly clean all food service equipment after each use.

3.

Clean Food:

Buy pasteurized milk and milk products.

Buy federally inspected meat, poultry, and fish.

Protect food from rodents and insect infestation, poisonous chemicals.

4.

Right Temperature:

Keep perishable food "cool and collected" in refrigerator.

Keep food hot or cold or don't keep it. "A walk to the refrigerator may be your most valuable steps."

Don't thaw frozen foods at room temperature.

5.

Healthy Workers:

Don't let workers with sniffles handle food.

Encourage regular health examinations for all workers.

Keep lights and ventilating systems in proper working order.

BEWARE OF THE UNWELCOME GUEST

Flies, roaches and other insects like to inhabit your busy kitchens and store rooms. Uncovered garbage cans, unclean floors, cracks and openings in tables, cupboards, and walls provide them with food and shelter. They may enter the kitchen through open windows, doors, and during deliveries of food. Your job is to take persistent and positive steps to deprive them of a "home they can call their own".

There are many kinds of insecticides available, to be used for various kinds of insects and in various ways. Some are used as a mist -- which kills when the insect flies through it; some must hit the insect to kill it; some can be painted on surfaces to give long lasting killing effects to crawling insects. Recently a new "bait-type" insecticide has appeared which kills when the insect "eats" it. This bait-type material is placed outside a building at strategic spots to kill the insect before it can enter a food service area. Any insecticide must be approved by Federal law passed in 1947 before it can be sold. The law, known as the Federal Insecticide, Fungicide and Rodenticide Act, is enforced by the Insecticide Division of the United States Department of Agriculture. Instructions for using must be on the label.

Select with care the insecticide used in your food service. The word "non-toxic" should appear on the label, which means the insecticides "are harmless to human beings and animals when used as directed".

No single set of instructions will fit all food service operations. Representatives of insecticide manufacturers can give advice on insect control or your local health department can recommend qualified pest control

services. A plan for complete control in your kitchen will require the cooperation of the maintenance department. Even though the actual program is carried out by someone else, you will need to take part in the planning. Here are some of the things you can do:

- ___ Cover all garbage cans
- ___ Keep equipment far enough away from walls to permit thorough cleaning
- ___ Eliminate cracks and crevices
- ___ Keep lighting fixtures clean
- ___ Keep storage areas clean and neat. Store food in covered containers
- ___ Examine food deliveries for "stowaways"
- ___ Keep switch boxes clean
- ___ Don't store insecticides or germicides with food or in food containers
- ___ Keep fans and ventilating hoods clean
- ___ Provide closed storage for dishes
- ___ Establish a regular extermination schedule

WASHING AND SANITIZING DISHES AND UTENSILS

Dishwashing is an important operation in any kitchen. Diseases may be spread from one person to another from dishes and utensils which are not properly washed. Workers, too, may become ill as a result of careless handling of soiled dishes. Where large numbers of people are served, a mechanical dish machine is desirable. This is the approved procedure:

Pre-rinse dishes to remove food particles prior to washing and stacking.

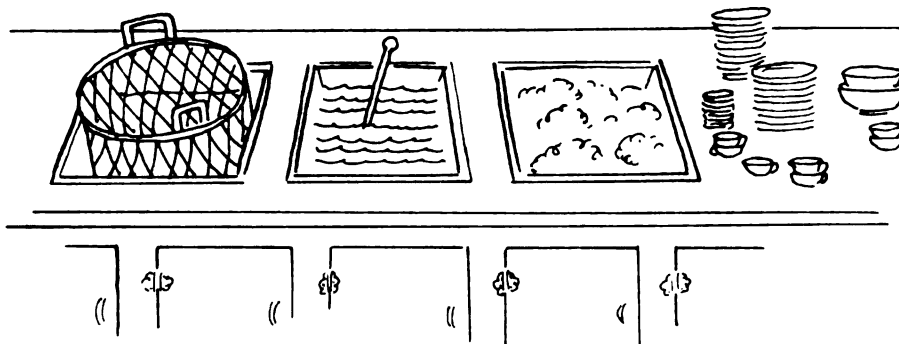
Wash in water 130° F., using a satisfactory detergent.

Rinse with water 170° F. (This is sanitizing temperature).

Hand-wiping of dishes is not permitted. It is unnecessary if dishes are stacked so that they will drain properly and if the final rinse water is the recommended temperature. Special wetting agents added to the wash tank help dishes to air-dry quickly without water spotting.

The worker who handles the soiled dishes should not be the one to remove the clean dishes.

The machine should be thoroughly cleaned at the end of each washing period. Remove spray arms to dislodge bits of food which may clog the spray openings.



If dishes are washed by hand, a 3-compartment sink is desirable. A two compartment sink plus a large dish pan can be used for the 3 steps in the procedure given here:

Pre-rinse, as for mechanical washing, to remove food particles prior to washing, and stack.

Sink 1: Wash in soapy water at 110° - 120°.

Sink 2: Rinse in clear hot water.

Sink 3: Sanitize by immersing dishes for a minimum of two minutes



in water at 170° F. A thermometer is essential to assure proper temperature. Pouring hot or scalding water over utensils does not sanitize them. Wire baskets are necessary for immersing dishes in 170° F. water which is too hot for hands. Some heating device is usually required under the 3rd sink to maintain the approved temperature.

Hand wiping of dishes is not permitted.

Handwashing of dishes may be followed by chemical sanitizer instead of the 170° F water sanitizing. In the third sink, use a chlorine solution, 1 tablespoon to each gallon of water. Immerse dishes for a minimum of 2 minutes in this chemical solution for sanitizing before draining.

Chemical sanitizers do not work satisfactorily unless wash tanks, brushes, and other sanitizing equipment are clean.

Having enough hot water is the big factor in safe dishwashing. The main hot water supply seldom reaches the temperature of 170° F., which is necessary for sanitizing. A booster heater can be installed to maintain this required temperature for the dishmachine rinse or for the final rinse sink when dishes are washed by hand.

In the case of a temporary failure of your dishmachine, use the procedure just described for washing by hand until proper repairs can be made.

HOW TO STORE DISHES

Where open shelves are used, dishes must be stored at least 2 feet from the floor. Do not store them near an open window or door where dust can blow on them.

Invert all dishes if not used regularly, such as cups, bowls, glasses.

Keep all shelves clean and free of dust.

Do not store dishes under sinks where dirt and water may fall on them.

Do not store dishes on counters where customers may sneeze or cough on them.

Keep knives, forks, and spoons in separate compartments with the handles all turned in the same direction where the customers can reach them easily.

Don't leave dirty dishes overnight.

Don't use cyanide silver polishes or dips. They may leave poisonous residues.

HANDWASHING FACILITIES FOR PERSONNEL

Handwashing sinks conveniently located encourage food handlers to wash their hands frequently. Sinks used in the preparation of food and washing of utensils are not used for this purpose, and employees seldom take the time to walk long distances just to wash their hands.

THE PATIENT IN ISOLATION

Dishes used by a patient with a "catching" disease require special treatment. If regular china and silverware are used, the cleaning and sanitizing is done by the nurse by immersing them in chlorine solution and rinsing in clean running water. The dishes can then be sent to the kitchen for complete sanitization in the usual way. The patient's tray is treated in the same way. The best way is to feed the patient during the isolation period with disposable paper utensils. The nurse then sends the disposable items off in a paper bag for burning and only the silverware and tray need be sanitized. Complete elimination of utensil washing can be brought about by the use of standard paper cups, plates, forks and spoons, and disposable trays.

Chapter VIII

OPERATION: SAFETY

"Thank goodness, it wasn't serious"! How often have you said this when a pot of hot liquid spills or a worker slips on a wet or greasy floor? But what steps did you take to prevent the accident? Accidents usually happen because of unsafe conditions or careless behavior. Prevention of accidents can be brought about by training workers to develop safe working habits and by providing safe working conditions.

Too often we think of an accident as a single incident that is soon over. Equally important are the long time effects on the individual and his family as well as the cost to the institution in loss of workers' time. Remember:

ACCIDENTS DON'T PAY --

BUT PEOPLE DO



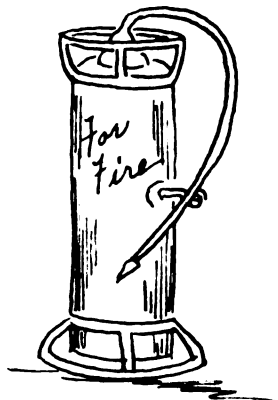
Safety education and sanitation training go together. Safety, like sanitation, is not a "one-person" job. Both are everybody's business.

Accident prevention is related to equipment cleanliness and maintenance. You are not expected to be a mechanic, nor will the maintenance man be able to spend all his time in your kitchen. Train employees to operate all equipment properly, to recognize and report any condition that does not look or sound right. Work out a schedule with the maintenance man for regular checking of equipment for safe operation.

Use frequent reminders in the form of posters, slogans, and films. Group "meetings" to discuss safety practices is an effective method to use in safety training.

Ranges, steam cookers, electric equipment, knives and other sharp utensils, are all vitally necessary in food service work. Develop safe practices to eliminate the hazards of cuts, shocks, burns, or permanent injuries. Here are some suggestions:

FIRES - STOP THEM BEFORE THEY START



Most fires over ranges are caused by an accumulation of grease. Keep hoods free of grease to eliminate fire and to maintain good air ventilation. Keep a smother-type fire extinguisher in the kitchen. Teach the workers its location and how to use it. Keep salt or baking soda handy to throw on small grease fires.

In case of an electrical fire, pull the main switch. Before lighting a gas-fired oven, make sure there has been no gas leakage into the oven. Before you light the oven burner, open the oven to detect any smell of gas.

When lighting the oven, make sure all of the burner is lighted and free from grease. Keep burners and oven interiors clean. Don't slam

the door to light the entire burner; the flame may go out but the gas continues to flow. Wait for the entire burner to light and shut the door carefully.



In case of fire, turn off ventilating fan and close doors and windows to prevent drafts.

TO PREVENT BURNS:



Keep handles turned away from the edge of the range to prevent accidental spilling.

Use long handled stirring spoons, whips, and forks.

Use pots and pans with sturdy handles securely attached to the utensil.

When food preparation is finished, turn off burners and ovens.

Don't use towels and aprons to remove hot pans from range top or oven.

Use flame proof pot holders, kept within easy reach of range but away from open burners.



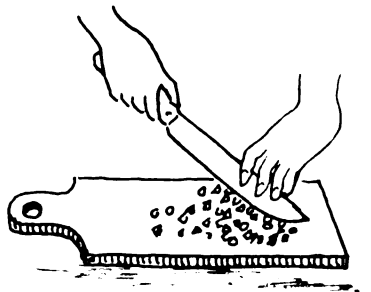
Use tight fitting lids when possible to prevent burns from spilled liquids.

Always let the pressure gauge return to zero before opening pressure steamer or pressure saucepan.

"Tilt the lid on
the pot.

You learned long
ago

that steam is hot!"

TO PREVENT CUTS:

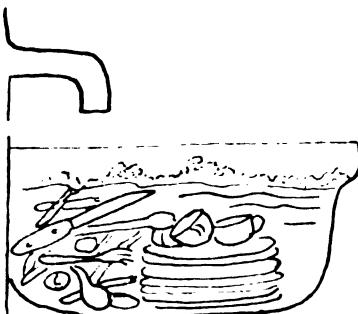
Hold fingers back while chopping or dicing to eliminate finger slicing, or rest finger tips lightly on the back side of the blade.

"Sharp pointed tools

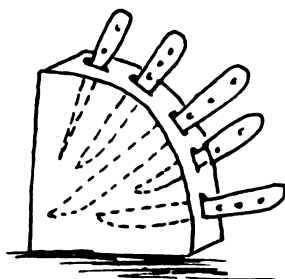
Their danger deny

When deep under the suds

They calmly lie!"



Wash knives and cutting blades on slicers or choppers very carefully after each use and store in proper place.



Keep hands away from moving parts, when operating an electric machine. Turn off the switch when job is done and wait till all moving parts have stopped before touching the machine or removing food.

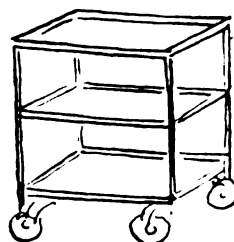


Billowing sleeves, apron strings, ties and jewelry are out of place and unsafe around machines.

Replace cords and connecting plugs on electrical equipment at the first sign of wear.

LIFTING LESSON:

If you can push it,
don't carry it.



"Use your leg muscles --
Not your back
Or your muscle machinery
May get out of whack!"



Wipe up wet or greasy spots promptly
and thoroughly. A careless moment
may mean a lifetime injury.

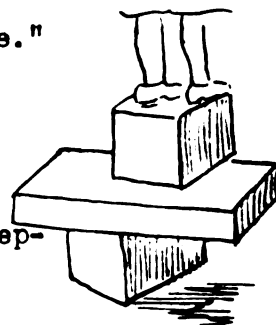
Flat heeled shoes with non-skid soles
prevent slipping.



Sweep up broken glass -- never pick
it up by hand.

"Makeshift props that are not secure
Invite a fall -- and that's for sure."

Do not stand on chairs or boxes to get
hard-to-reach items. Use a kitchen step-
stool.





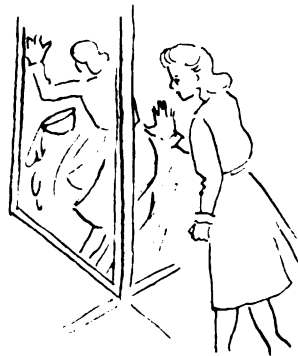
Do not endanger others by leaving
cupboards, drawers, and oven doors open.

Carelessness is catching --

Pay attention to the job at hand.

Have sufficient light in work area.

Replace burned out bulbs.



Hurry slowly when going through swinging
doors. The face you save may be your own!

WHAT TO DO IN CASE OF AN INJURY OR ACCIDENT:

1. Report the accident or injury at once to the administrator's office. Follow his policy concerning first aid. Usually minor cuts and burns can be treated promptly in the emergency room.
2. If the injury is serious, keep the worker quiet and comfortable until he can be moved under a doctor's orders.
3. Promptly fill out and channel all required reports of accident to the proper authority. Hazards removed today will prevent an accident tomorrow. Remember, your kitchen will be as safe as you make it.
4. Investigate the cause and eliminate the hazards which led to the accident.

Chapter IX

FORMS & RECORDS

Much time can be saved by using forms on which some information is already printed or mimeographed. Any information which must be transmitted daily or weekly, for example, can usually be set up in a form which will save writing. Forms for information which concerns more than one department of the hospital are developed by the administrator, but forms used within the food service department are usually set up by the manager. It is wise to try out a form for a short time before it is reproduced in quantity, as changes may be needed after a trial. When developing a new form, get ideas from the business office, nursing department and other persons who will be using the form, for best results. Simple forms are always best.

Certain records are valuable in that they make available information necessary for the efficient operation of the dietary service. Some of the forms here are suggested for the collection of such information. The best forms for you will be those you develop for your own situation and needs.

DIET CENSUS SHEET

One of the most useful and important forms is the "Diet Census Sheet". This is prepared by the night nurse and sent to the dietary department before the breakfast trays are served. From this record, the dietary workers know exactly the number of trays to be served. A copy of the census sheet should be kept at the nursing station in each unit so that when trays are served they can be checked off at each meal in the proper column. The regular 8½" x 11" or letter size paper is suitable for this form.

1. List all bed numbers consecutively. Include empty beds.
2. Mark X in proper square for diet orders.
3. List special test meals and postponed trays in proper column.
4. Changes or additions for the noon and night meals must be sent to the dietary department by 10:30 a.m. and 4:00 p.m.

[illegible]

Every patient has some kind of diet, either general or modified. Visit new patients as soon as possible after their admission. In this way, you get firsthand information about their likes and dislikes and any special food preferences. This form is suggested for your files. Make it upon 3 x 5 cards and file in card box.

Form No. _____		
Name _____		Room No. _____ Date _____
Diet Order _____		Physician _____
Food Likes	Food Dislikes	Comments

For accuracy, write out the foods to be served each patient on special or modified diets. Below is a suggested form for this purpose. If you use 8½ x 11 size paper, three forms can be printed or mimeographed on each sheet.

DIET CARDS					
Form No. _____		DIET _____		DIET _____	
Name _____		Name _____		Name _____	
Room No. _____ Date _____		Room No. _____ Date _____		Room No. _____ Date _____	
BREAKFAST		DINNER		SUPPER	
Cream Milk Tea Coffee	Salt Pepper Sugar	Cream Milk Tea Coffee	Salt Pepper Sugar	Cream Milk Tea Coffee	Salt Pepper Sugar

MODIFIED DIETS

It is an accepted practice to plan modified diets from the normal or general diet, using only the necessary additions or substitutions to conform to the prescribed diet. A "special diet kitchen" is no longer considered essential so that items such as fat-free, salt-free, pureed and other special foods are prepared in the general preparation unit. To make certain that no prohibited foods and seasonings are served and that substitutions are ready at serving time, a modified diet form is suggested. The general menu for the day is placed in the left hand column and the arrows plainly indicate all foods which can be taken from the general preparation to modify the various diets as needed. A sample of this form is included on the next page.

UNITED STATES OF AMERICA
DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C. 20535

Having all foods prepared and ready for serving at the proper time is the secret of a well organized food service. A summary form, as suggested, will help the employees responsible for preparation and service to make certain that all foods are ready.

Date _____

Hot Foods	No. Servings	Cold Foods	No. Servings
<i>Cream of wheat</i>	50	<i>Orange juice</i>	50
<i>Fried eggs</i>	30	<i>Jelly</i>	40
<i>Soft Cooked eggs</i>	15		
<i>Baked Ham</i>	30	<i>Endive Salad</i>	50
<i>Beef Patties</i>	15	<i>Pineapple Ice Cream</i>	30
<i>Glazed Sweet Potatoes</i>	30	<i>Fresh Cantaloup</i>	15
<i>Grashed white Potatoes</i>			
<i>Buttered peas</i>	50		
<i>Vegetable Soup</i>	50	<i>Sliced tomato Salad</i>	50
<i>Consommé</i>	10	<i>Baked Custard</i>	15
<i>Welch Wheat</i>	30	<i>Fresh Peaches</i>	15
<i>Sliced Chicken</i>	15		
<i>Buttered Spinach</i>	50		
<i>Rolls</i>	50		
<i>Date Bases</i>	50		

BREAKFAST

DINNER

SUPPER

QUOTATION SHEET FOR PERISHABLES

Day _____ Date _____

Quantity	Unit	Description	Quotations from Vendors		
			ABEL'S	Tones + Co.	Elite Products
1 bag	Tomatoes	Grade A, not over-ripe	3.00	(2.90)	2.95
1 hamper	Sweet potatoes	U.S. No. 1, New Jersey	2.50	3.50	(2.00)
1 crate	Lemons	U.S. No. 1, Calif. 150's	6.00	6.50	(5.50)
1 crate	Dorling lettuce	U.S. Fancy, Calif.	(2.25)	2.50	2.75
1 Bushel	Carrots	Grade A	2.25	(2.10)	2.50
6/100 lb bags	Potatoes	U.S. Grade No. 1 Irish Cobbler	(1.50)	2.00	2.25

In the purchase of perishable fruits and vegetables a quotation sheet is helpful. This printed or mimeographed form, size 8½ x 11 inches, has a column for quantity, unit, description and names of vendors from whom quotations are received. When the decision is made concerning the items to be purchased, the price is circled under the vendor's name. A check mark over the vendor's name shows that the order has been placed. This form can serve as a purchase order for those items.

To provide a written record of food used daily from the storeroom, the requisition form is suggested. This form could be posted on the storeroom door so that the quantity, unit, kind, can be recorded by each person removing the food. This gives you an accurate record of food issued from the storeroom at the end of the day or week or month.

REQUISITION OF SUPPLIES FROM STOREROOM

Quantity	Unit Size No. Can, lb. or pkg.	Description of Item	Date	Person Checking out Food
3	No. 10	Royal ANN Cherries	5-1-57	J. Brown
2	12 oz. Pkg	Cornflakes	5-1-57	R. Kelly
4	No. 10 Cans	Peach halves	5-2-57	A. Jones
	3#	Rice	5-3-57	A. Jones

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Some records are necessary for operation of the food service while others are essential for information only. The food service should not be burdened with record keeping that can be done as satisfactorily by the business office. Most hospital food service departments, however, maintain employee and equipment records, as suggested here:

EMPLOYEE RECORD FORM

4" x 6"

Name _____			
Home Address _____		Phone No. _____	
Marital Status _____		Date of Birth _____	
Assignment _____			
Date Effective	Position	Salary	Evaluation

EQUIPMENT RECORD

4" x 6"

Item _____	Model No. _____	Serial No. _____
Attachments _____	Capacity _____	
Purchased From _____	Date _____	
Purchase Price _____		
Parts Repaired _____	Date _____	Cost _____
Parts Replaced _____	Date _____	Cost _____
_____	_____	_____
_____	_____	_____

Chapter X

KITCHEN MANAGEMENT

As food service manager your job is more than seeing that three meals are served daily. It's a teaching job, a job of bringing out the best in the people around you. It gives you a chance to be "creative", to make work easier, more satisfying, productive, and enjoyable for those who work with and for you.

Planning and thinking ahead helps you to be a good manager. Sitting down with paper and pencil and writing out what's to be done may help you to look at a problem and to find a better solution. A written plan is most helpful when you are trying to do something new. It makes you see more clearly what has to be done. It may help you to see that you've been trying to do more than you could possibly do. It may help to show you that you have not been taking advantage of the abilities of people who work with you. Sharing jobs and responsibilities with others is part of "creative management".

As a food service manager, you may be responsible for selecting workers. You are concerned, then, with what they do, how they do it, when they do it, why and where they do it.

PUT EACH JOB ON PAPER

The answer to effective management is job descriptions and work schedules. These awesome phrases simply mean putting down each employee's job on paper. This helps to eliminate overlapping duties, makes sure that all work is covered, and lets the worker know what is expected of him. It eliminates confusion for the employee who is "afraid of doing something wrong". Too often new employees are "broken in" by older employees who explain all routines by "this is the way its always been done".

JOB DESCRIPTION for each employee helps to determine what is to be done and who is to do it. It should include information on work hours, time off, pay schedule, age, personal qualifications and possibly educational qualifications. Preparing job descriptions is the first step toward finding the right person for the job. This suggested job description for a "tray girl" may help you in writing your job descriptions:

JOB DESCRIPTION CARD

TITLE: Tray girl - 1st floor.

SUPERVISION: Food service supervisor.

DUTIES: Sets up and clears patients' trays.

Carrys special trays from patients' rooms.

Returns clean tableware to proper place.

May assist in main kitchen during slack period.

May prepare toast and eggs and cold cereal for breakfast.

Keeps refrigerator in floor pantry supplied with juices, milk, and other supplies.

WORK POLICIES: Hours - 7:00 a.m. to 4:00 p.m.

Pay _____ per week plus uniform laundry and 1 meal each working day.

Time off - two days per week.

Vacation - twelve working days each year.

Uniforms - white uniform with short sleeves.

AGE: Not less than 16 or more than 60.

EDUCATION: High school preferred, but not essential.

SPECIAL QUALIFICATIONS: Good judgement.

Strength and endurance is required since employee will need to be on her feet for a period of time.

Speed - must work quickly as serving time is limited.

Patience - essential in working with sick people.

Experience - previous experience not necessary

PERSONAL QUALIFICATIONS: Pleasant voice and manner and neatness in appearance.

This is by no means a complete description for all tray girls in all institutions, nor will descriptions of all jobs be the same. Description for cook, for instance, would have additional qualifications such as previous experience, maturity, and initiative, different hours of work, and pay scale, etc.

A WORK SCHEDULE "spells out" the duties and responsibilities of each worker, and indicates approximate time allotted for the specific tasks. This gives the employee a guide and the security of seeing clear-cut definitions and what is expected of him. New employees learn the right way. Although schedules are used to "standardize" work output, they may be used, too, to improve work methods.

Discuss the details of the job with each worker. Are they doing all they should? Could some employees do more than they are doing to equalize the work load for all? Employees may be able to suggest short cuts to increase efficiency and reduce labor hours, and costs.

Be sure each employee sees his work schedule in writing: that way there is less confusion and misunderstanding. The best way is to post work schedules on your bulletin board or at the "communications center".

Work schedules can be written on 5 x 8 file cards, or written on $5\frac{1}{2}$ x $8\frac{1}{2}$ inch pages and kept in a loose leaf binder.

Here is a suggested work schedule for a tray girl:

TRAY GIRL - WORK SCHEDULE

Hours: 7:00 a.m. - 4:00 p.m.

- 7:00 Report for duty in uniform
Begin preparation of patients' breakfast trays
Portion cold foods for breakfast trays
Preheat dishes for hot food
- 7:45 Assist in serving and distributing trays to patients
- 8:15 Clean up serving area and return leftover food and utensils to kitchen
- 8:30 Assist in collecting patients' breakfast trays and transport to dish washing room
Assist in transporting clean dishes back to serving area
- 9:00 Prepare nourishment
- 10:00 Pass out nourishment to patients
- 10:15 Rest period or coffee break
- 10:30 Start preparation and portioning of cold foods for dinner trays
- 11:30 Eat lunch
- 12:00 Assist in serving dinner trays to patients
- 1:00 Assist in collecting trays and transporting to dish room
Return clean dishes to serving area
- 2:00 Portion cold foods in preparation for supper meal
Refrigerate all cold food until serving time
Assist if necessary in salad and dessert unit
Clean and refill salt and peppers and sugar bowls
- 3:15 Coffee break
- 3:30 Check with tray girls on duty for supper meal to see that all duties are covered.
- 4:00 Off duty

BREAKFAST 7:30 a.m.
 DINNER 12:00 noon
 SUPPER 5:00 p.m.

Time	Cook	Dishwasher	Tray girl or Kitchen Helper
Hours	6:00 a.m. - 2:00 p.m.	6:00 a.m. - 2:00 p.m.	7:00 a.m. - 3:00 p.m.
6:00 - 7:00	Check meat for dinner Make coffee and cereal Get out vegetables to be peeled	Help set up trays Portion juices, sugar, dry cereals	Help set up trays
7:00 - 8:00	Cook eggs Portion cereal	Load carts with hot foods Pour coffee	Pour milk Make toast
8:00 - 8:15	Eat Breakfast		
8:15 - 10:00	Prepare foods for dinner	Scrape dishes Wash dishes	Pick up trays Clean serving counter Replace clean dishes
10:00 - 10:10	Coffee break		
10:10 - 11:00	Finish dinner preparation and special diet foods	Wash pots and pans	Assist cook Make coffee
11:00 - 11:15	Place food on steam table	Portion cold foods	Turn on steam table
11:15 - 12:00	Serve at steam table	Help put trays on carts	Help serve trays
12:00 - 12:30	Eat dinner	Eat dinner	Eat dinner
12:30 - 2:00	Clean cooks area Help supper cook	Pick up trays Wipe dining table	Pick up trays Clean coffee urn
2:00 - 2:10	Off duty	Off duty	
2:10 - 4:00			Off duty
4:00 - 5:00			
5:00 - 5:30			
5:30 - 6:00			
6:00 - 7:00			
7:00			

Suggested chart for scheduling all dietary workers. You can see at a glance if all work is covered, and determine how many workers are required.

Kitchen Helper

Cook

Dishwasher

10:00 a.m. - 6:00 p.m.

11:00 a.m. - 7:00 p.m.

11:00 a.m. - 7:00 p.m.

Help set up trays
 Portion cold foods
 and refrigerate
 Assist in arranging
 food on steam table
 Serve trays

Assist with food
 preparation
 Serve vegetables on
 steam table

Portion dessert
 Help serve trays

Eat dinner
 Take patients' trays
 from carts
 Wash trays

Eat dinner
 Start supper
 preparation

Scrape dishes
 Wash dishes

Coffee break
 Clean carts and
 counter
 Make supper coffee

Coffee break
 Finish supper
 preparation

Coffee break
 Portion cold foods

Portion food for supper
 Serve supper

Prepare special diets
 Serve supper

Help prepare counter
 Help serve supper

Wash pots and pans

Clean kitchen
 Put food away
 Clean stove and
 counter

Scrape and wash dishes
 Put dishes away and
 clean area

Off duty

Off duty

Off Duty

SIMPLIFY WORK TO SAVE TIME AND MONEY

Labor is one of the largest items of expense in a food service. The amount of labor saving equipment affects the number of "man hours" required to accomplish a given amount of work. Potatoes peeled by hand, cakes mixed without the use of a power mixer, roasts carved by hand, are examples in which work hours may be increased.

Work simplification is a term used frequently in industry. It is simply a common sense way of making work easier. Work simplification techniques are used to lessen the amount of wasted time associated with important and worthwhile tasks. Work simplification methods as applied in industry will work in a food service unit.

The first requirement for success in applying work simplification is a "desire to improve". Many different jobs are done in the kitchen. Some are easy and some difficult. You undoubtedly know that many jobs are being performed as effectively as they can be. But do you ever ask, "why is this job necessary at all?", or "why does that task take so long?", or "why are so many people needed to perform this function?" If you are interested in improvement, concentrate your attention on the tasks that are likely to yield the greatest benefits when simplified. Look for the jobs involving the largest number of workers. Consider the tasks that are repeated day after day. Search for the activities that take the most time.

After you have selected a task for simplification, discuss your thoughts and plans with others. Explain the benefits to the workers, help them to think critically about their work, and encourage them to participate. Success in carrying through a work simplification program depends on attitudes of people more than particular skills.

WORK SMARTER, NOT HARDER

In **preparing** food, look for the easy way to save time and motions.

Assemble all supplies, utensils, etc., before beginning to work
and arrange in sequence to eliminate unnecessary motions.

Use both hands whenever possible.

Mix ingredients in the simplest way. For instance:

Measure $\frac{1}{4}$ cup rather than 4 tablespoons
Measure 1 quart rather than 4 cups
Measure 1 gallon rather than 4 quarts

Simplify preparation whenever possible by baking vegetables in
skins, casseroles in serving pans.

Weigh dry ingredients whenever possible.

Use a French whip when possible for easy mixing and to avoid
lumping of mixtures.

A food mill used for straining rather than sieve and spoon saves
time and energy.

Heavy duty table type can opener saves time, and avoids cuts.

In **place** of knives in vegetable preparation, use:

Chopper or shredder

Scissors in disjointing poultry, in dividing portions
of food to be prepared, and in cutting marshmallow,
dates, and other sticky food which might adhere to
knives and slow up the process of preparation.

Use of standard ladles and scoops in making portion
servings takes the guesswork out of portion control
and saves time and energy.

ELIMINATE UNNECESSARY STEPS:

Keep stores and supplies at the place where they are most often used.

Keep utensils near work tables. Duplicate enough scales and measuring equipment where necessary to save steps.

Try to arrange equipment to produce good work flow. Avoid criss-crossing and back-tracking and unnecessary steps.

Store clean dishes at serving areas to avoid extra steps.

SAVE STEPS AND REDUCE FATIGUE:

Use trucks or carts for carrying supplies from store room to work areas.

Use cart or movable table for transporting foods to serving area.

Use trays for carrying multiple servings of salads or desserts.

Avoid running back and forth with one item at a time.

Arrange heights of tables and counters for comfort of workers.

Consider heights in fitting the work to the person.

Arrange work schedules so that all individuals get equal amounts.

Use dollies for large containers for flour and sugar.



Provide excellent tools, sharp knives, whips, cutting boards, measuring tools that can be easily read, filled, emptied, and cleaned.

Keep equipment clean, oiled and always ready for use. Wheels and castors on movable equipment should be checked regularly to eliminate delays and break-downs.

Have good light in all working areas. "Squinting" because of poor light slows production. Provide good ventilation for comfort of workers.

Explain "why" when you give a direction or make a request. Informed workers are more intelligent employees. Keep the cook informed on how many persons are to be served and possibly how the daily costs are running. They will be just as interested as you are in controlling costs.

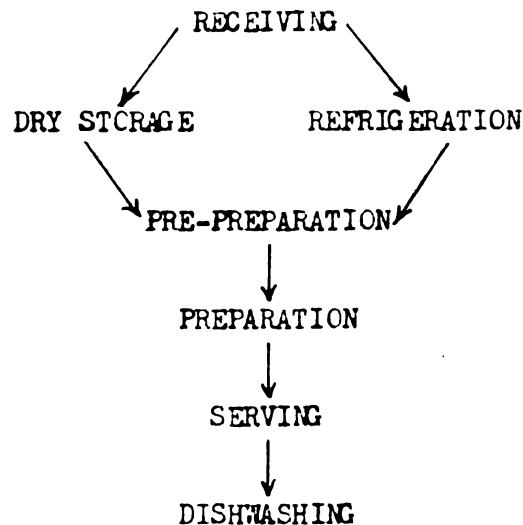
An interested worker is a more efficient employee. Recognition and appreciation of accomplishments must be given. Opportunities must be provided for personal growth and the development of special abilities. Let the workers feel important to the organization and give them a share in your program for improving work methods.

Chapter XI

KITCHEN EQUIPMENT AND LAYOUT

Whether or not your kitchen is a pleasant place to work depends partly on the amount and kind of equipment and the arrangement of equipment in the various work areas.

The preparation of food is a production process. The wise planning of equipment and layout is important not only for the comfort and convenience of the workers, but also because you are dealing with perishable materials in foods. Is your kitchen arranged so that food supplies will move from the receiving entrance to storage areas without crossing through the preparation areas? Work places for rough preparation, such as vegetable cleaning and meat cutting, should be so placed that food moves in sequence from storage to cooking without criss-crossing and back-tracking. In addition to the actual preparation of food, meals must be served on time. Food must move to the serving center with ease and promptness. This is the proper route for good work "flow":



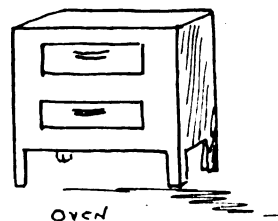
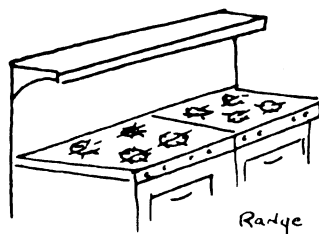
You may be one of the fortunate people who has a new kitchen in which to work, a kitchen designed by "experts" for efficient operation. If so, are you using each work unit as efficiently as possible and each piece of equipment to advantage? If your kitchen has been in operation for many years, could it be made more convenient by simple rearrangement of work areas or addition of labor saving equipment? Peelers, food choppers, power mixers, and steaming equipment are designed to do many times the amount of work which can be accomplished by hand labor. Before deciding to install additional equipment, however, determine what tasks each can accomplish, and select those which do a number of different kinds of work. Each piece will more than justify the investment and the space which it requires in the work area.

The amount, size, and type of equipment for an institution kitchen depends on the type of menu, number of people to be served, floor space, personnel, and possible plans for future expansion.

Here are some of the things to consider in the use and selection of important essential equipment:

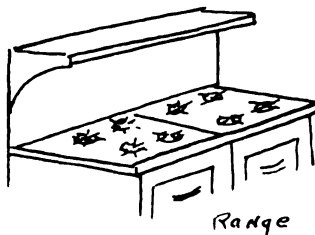
RANGES

Every kitchen should have a good institutional range, either gas or electric. It is the "heart" of the kitchen around which most of the food preparation work is done. Ranges are purchased in sections with open burners or closed griddle top on the cooking surface. Each section usually has an oven below. Hospitals serving 50 patients or more usually need two sections. If more oven space is needed, it is best to add a one or two deck oven rather than adding another section of range.



STEAM COOKING

In the smaller institution, most of the cooking is done in kettles on top of the range. In a hospital serving 50 or more patients, it is advantageous to add a two or three section steam cooker or a steam jacketed kettle, provided there is sufficient steam pressure available. Steam cookers are space savers because the compactness of a compartment cooker requires less than eight square feet of floor space and will do as much cooking as two sections of range requiring more than 18 square feet.



If you have a steam cooker, don't be afraid to use it. It is probably set for five to seven pounds pressure and equipped with a safety device to "blow off" excess steam if the pressure should go higher.

Most steam cookers cannot be opened while under pressure. If you are selecting a new steam cooker, be sure to select one with an automatic timer to regulate cooking periods. You may wish to consider a new high-compression steam cooker that has recently become available. This new steam cooker is fully automatic and cooks at 15 pounds pressure, thus shortening the cooking period. Foods prepared in the high compression steamer have excellent color and texture. This steamer operates with electricity and is completely independent of any steam line. It automatically turns off when cooking time is finished. Vegetables have the "fresh from the garden" flavor, appearance, and aroma. Meats prepared in the high-compression cooker can be cooked in a fraction of the time required by ordinary methods of braising, stewing, or steaming.

The high-compression steam cooker can be used on any table or counter which makes a convenient working height.

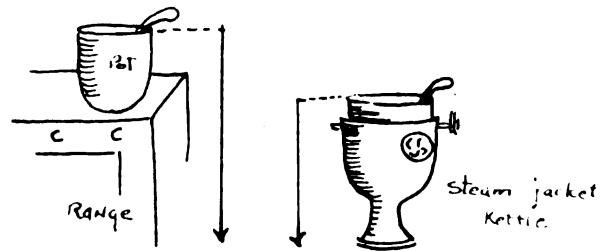
Cooking by steam cooker has many advantages. The cooking time is shortened. It's labor saving because some foods may be served in the same pan used in cooking. This is particularly useful for rapid, frequent heating of frozen and canned vegetables and eliminates detrimental holding. It's labor saving, too, because it reduces pot and pan washing. It's easy especially for starchy foods because it eliminates watching and stirring and the danger of scorching.

Cooking in steam jacketed kettles is easier and faster as cooking time can be cut almost in half. It eliminates the need to heat water in double boilers on top of the range. It is labor saving because larger quantities of food can be made in one operation. Meats can be browned without the use of other pans, thus saving time. There is only one pot to wash.

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It's easier to work at the height of the kettle than at the top of the range. Fuel use is economical not only because cooking is quicker

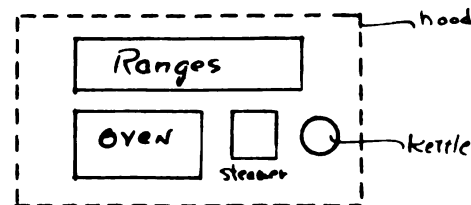
than top of range cooking, but because it is used only to build up sufficient pressure for cooking and then only enough is needed to maintain pressure.



Steam jacketed kettles are available from five quart capacity up to 60 and 80 or more gallons. A small institution might use a 10 gallon kettle, as the capacity would be approximately 150 cups. If greater volume is needed, purchase additional kettles rather than bigger ones. If you have a steam jacketed kettle that is too big for your food service operation, ask to have it replaced by a smaller size. Don't use it only for storage of aprons, pot holders, and other items. Smaller table models are used for cooking vegetables in small quantity. The tilted type is especially adapted for use in making pie fillings, puddings, and icings.

Ranges, steam cookers, steam jacketed kettles, and ovens are best placed under ventilating hoods to remove all cooking odors and steam. Food odors, especially from cooking fish and strong flavored vegetables, filtering through the entire building are objectionable to sick people as well as workers.

For ease in cleaning and accessibility, large cooking equipment is best placed in an "island" near the center of the kitchen. This also leaves wall space free for other types of equipment and preparation activities. A nearly square shape kitchen can best utilize this arrangement.



If the kitchen is long and narrow, the cooking equipment is often placed in a line along one wall. Five to six inches should be allowed between the wall and equipment for ease in cleaning.

VEGETABLE PEELERS

Mechanical peelers for potatoes and root vegetables save time and labor. They may be food savers, too, because much of the vegetable is apt to go out with the peelings if done by hand. A peeler with 15 pound capacity and a peeling time of one to three minutes is satisfactory for most institutions up to 100 bed capacity. Peelers are best mounted on a pedestal next to a sink so that the contents can be dispensed directly into the sink or storage container. They should not be so high that putting vegetables into them is difficult.

KITCHEN SINKS

Sinks are available in many sizes and types. Select them on the basis of the use to which they are to be put. For example, vegetable preparation sinks for small institutions should have two compartments, each compartment 20 by 20 inches and 12 to 14 inches deep. It's desirable to have three compartments for pot and pan washing; one for soaking, one for washing, and the third for rinsing. To accommodate the large pans used in food preparation, each compartment should be 24 inches by 24 inches and 14 to 16 inches deep, with a drainboard on each side. Stainless steel is more desirable than galvanized metal for it will last a lifetime and will not rust or corrode. All sinks should have a "splash back" 6 to 8 inches in height to protect the wall.

For convenience, locate vegetable and pot washing sinks near the food preparation center.

Large kitchens often have a small sink installed in the cook's table or near the range. This sink may be 15 inches by 15 inches and 8 inches deep.

All kitchens should have a hand lavatory to encourage cleanliness and sanitary handling of food. Provide soap or soap dispensers and towel dispensers.

WORK TABLES

Metal top tables have been found to be more satisfactory than hardwood (maple) tops except for bakeshop work. Hardwood or rubber chopping boards are recommended for chopping vegetables and meat carving, and these may be arranged to slide directly under the metal top tables so they are always handy.

Work tables vary in length and width, depending on where they are used. Work tables should be at least 30 to 36 inches wide if workers are to work on both sides. The minimum width advisable for a table used on one side only is 24 inches. Usually working heights are 36", although for women of shorter stature, 34" is a more comfortable height. Remember, when equipment is placed on a table of this height, it may be too high to use comfortably. A "table model" mixer, for example, is easier to use if mounted on a stand 28 to 30 inches high.

If preparation at the table requires cutlery, one or two drawers should be provided. Metal drawers are lighter in weight and easier to keep clean than wooden ones.

The space under work tables may be enclosed for storage or may have a lower metal shelf between table legs or be open to the floor for storing portable bins, trucks, etc.

Providing a pot and pan rack over the cook's table, suspended from the ceiling and approximately 7 to 8 feet from the floor, helps the cook to work efficiently. She does not have to run all over the kitchen collecting the necessary utensils.

MIXERS

Even the smallest institution will find many uses for a mixer, which has attachments for grinding, chopping, and slicing, as well. The smaller size mixing machines are usually table models while the larger sizes are mounted on pedestals. Bowls are available in different sizes and can be adapted for use by adding a metal ring. Beaters and whips for mixers should be handled with care so that they do not become bent, thus striking the bowl when revolving.

REFRIGERATORS

The amount and type of refrigeration varies with each institution. Refrigerators are of two types -- the walk-in and the reach-in type. The amount of refrigeration, in general, depends on (1) the kinds and amounts of food to be stored, and the length of time it requires storage. If daily delivery of perishable foods is possible, the amount of refrigeration space required may be less. (2) The kinds and amounts of frozen foods, including meats, fruits, and vegetables, poultry, and ice cream to be stored, and (3) the number of people to be served.

In new institutions, three separate walk-in refrigerators are recommended, for the storage of meats, fruits and vegetables, and milk and dairy products, because these products require different storage temperatures. Meats and dairy products, for example, require a temperature of 35° F., fresh fruits and vegetables, a temperature of 45° F. When only one walk-in refrigerator is available for general storage, the

temperature should be kept at 40° F.* For convenience, walk-in refrigerators should be in the kitchen or in areas very close to the kitchen.

The reach-in type refrigerator is used in the kitchen for the storage of desserts, salads, fruits, and foods prepared and ready for service. A reach-in refrigerator is useful in food preparation center to store supplies for the cook and baker. The size of reach-in refrigerators will depend on the space available, and the amount of food to be stored.

Deep freeze storage units are almost as necessary in modern institutions as refrigerators, since more and more food is being frozen, and in amounts suitable for institution use. In new hospitals, deep freeze units are often constructed in connection with walk-in refrigerators according to the specifications requested by the institution. Upright and chest type units are also available in varying capacities. The space available usually determines the size to purchase.

For reasons of safety and proper control of food supplies, locks should be provided for all refrigerators and deep freeze units.

* U. S. Public Health Service regulations.

SMALL EQUIPMENT

In the small, as well as the large institution, it is economical to purchase semi-heavy weight aluminum pots and pans. This is also true for dippers, ladles, measuring utensils, and serving tools. Purchasing these items from a regular institutional supply house is often more satisfactory than from local stores. Institutional type equipment is built of stronger materials to withstand the wear and tear of constant use. Light weight utensils are easily dented and need replacement frequently and the replacement costs soon equal the original cost of durable pieces.

When selecting serving utensils, choose aluminum or stainless steel, and purchase them in uniform sizes to insure uniform servings of food.

Choose knives for the quality of steel of which they are made and to suit the need for which they are to be used.

EMPLOYEE FACILITIES

See that food service employees have lockers and dressing space to store and change into uniforms. These rooms should open off a corridor rather than directly off the kitchen or dining room. Unless these rooms are in close proximity to the working areas of the food service department, however, it means that cooks and essential workers must leave their work long enough to travel long distances to facilities.

MAINTENANCE AND REPAIRS

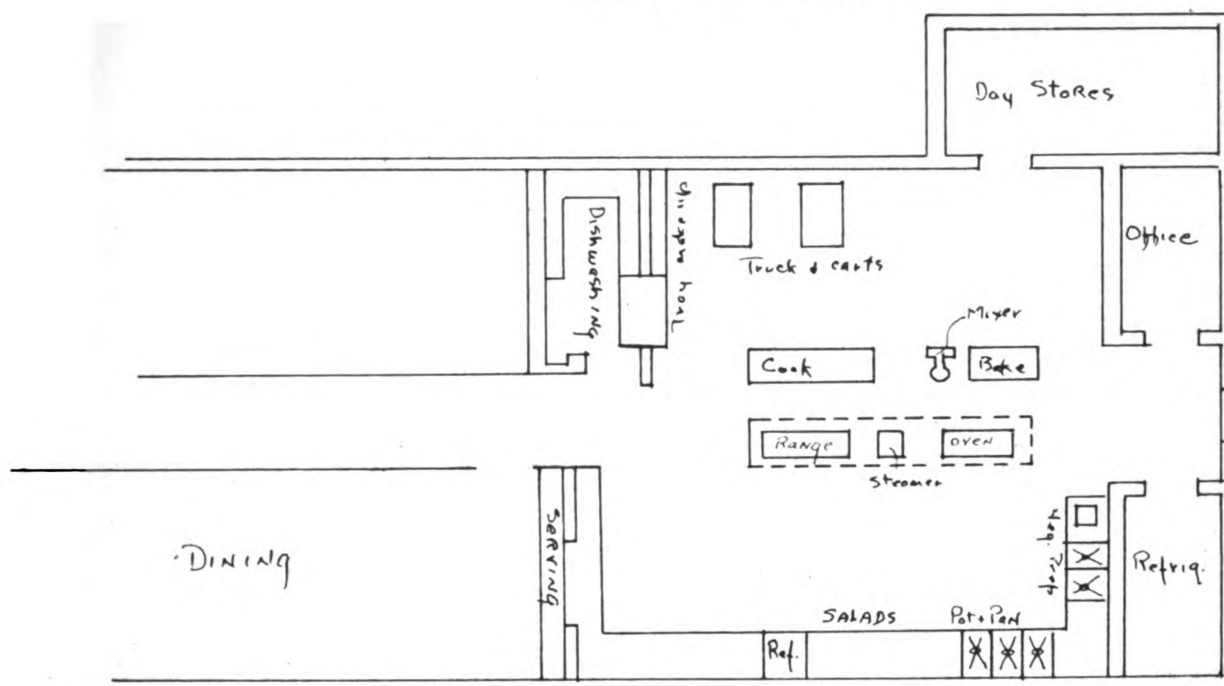
Even though the actual work is done by the maintenance department, it is the food manager's duty and responsibility to keep the food service equipment properly maintained and repaired. Close cooperation with the maintenance department adds a great deal to the smooth running of the food service. Certain minor replacements which occur frequently, such as tightening screws, replacing light bulbs, etc., may be done by one of the dietary workers. Food trucks that do not heat, dumb waiters that get stuck between floors, blown out fuses, are repairs which require a service man and must be reported promptly.

Keep a record of all repairs and replacements on major equipment as suggested in in the chapter on Forms and Records.

Much of the equipment in the dietary service is expensive and built to wear for many years if given proper care. Probably, the greatest responsibility of the food service manager is to teach employees the proper use of kitchen machines and the right way to clean and care for them. An inexperienced worker can wreck the most expensive equipment unintentionally if he has inadequate supervision.

Instructions for operating should be posted near the machines, but some additional instruction and supervision is necessary for its efficient and safe use. All equipment should be kept clean for proper sanitation and also to add to the service life of machines.

SUGGESTED ARRANGEMENT FOR KITCHEN
FOR 50 BED HOSPITAL

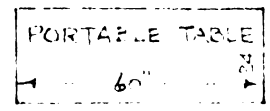
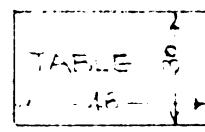
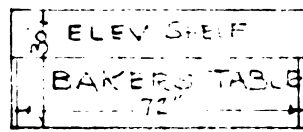
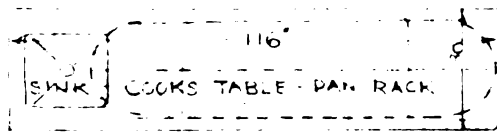


Most any kitchen can be made more convenient if attention is given to a "step saving" plan. Even in the well established kitchens some improvements can be made at no expense. Others may be justified by the savings in labor cost.

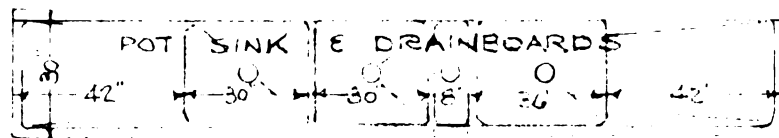
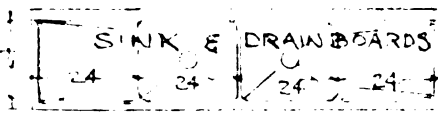
The use of small cut-outs or "templates" in the right proportion (scale) to the floor dimensions is the best way to try out arrangements. The flow of work can be outlined using various colored crayons.

In new kitchens, much thought should be given to the placing of equipment to make the best possible "work flow" from the delivery of food to the finished product. It is in this specific area that the services of a dietitian are most needed to work with the administration and architect in bringing about an efficient, functional kitchen. This service can be obtained on request from your State Department of Health.

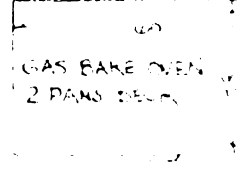
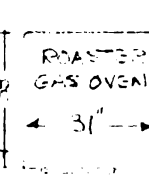
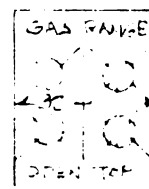
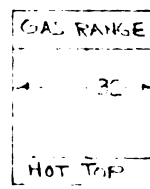
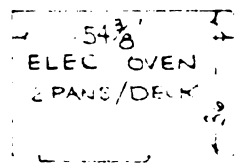
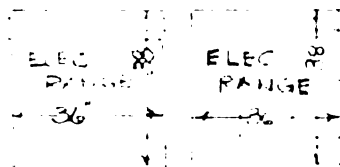
SCALE TEMPLATES OF KITCHEN EQUIPMENT



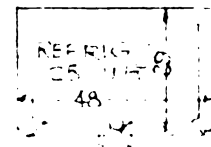
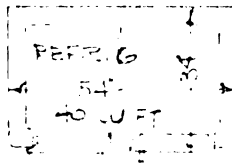
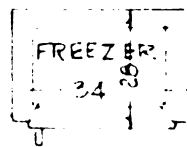
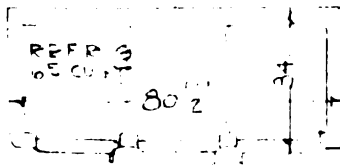
WORK TABLES



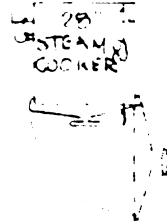
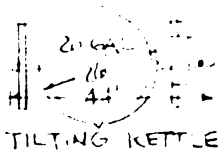
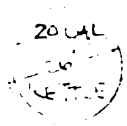
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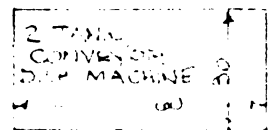
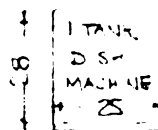
COOKING EQUIPMENT



REACH-IN REFRIGERATORS



STEAM COOKING EQUIPT



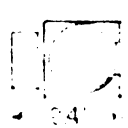
DISH MACHINES



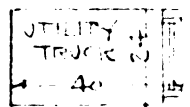
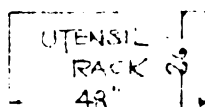
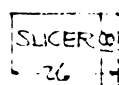
MIXER ON PORTABLE STAND



MIXER ON PEDESTAL

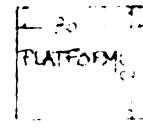
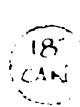
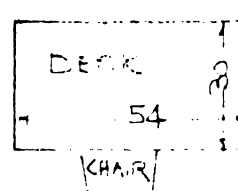


PEELER



PORTABLE EQUIPMENT

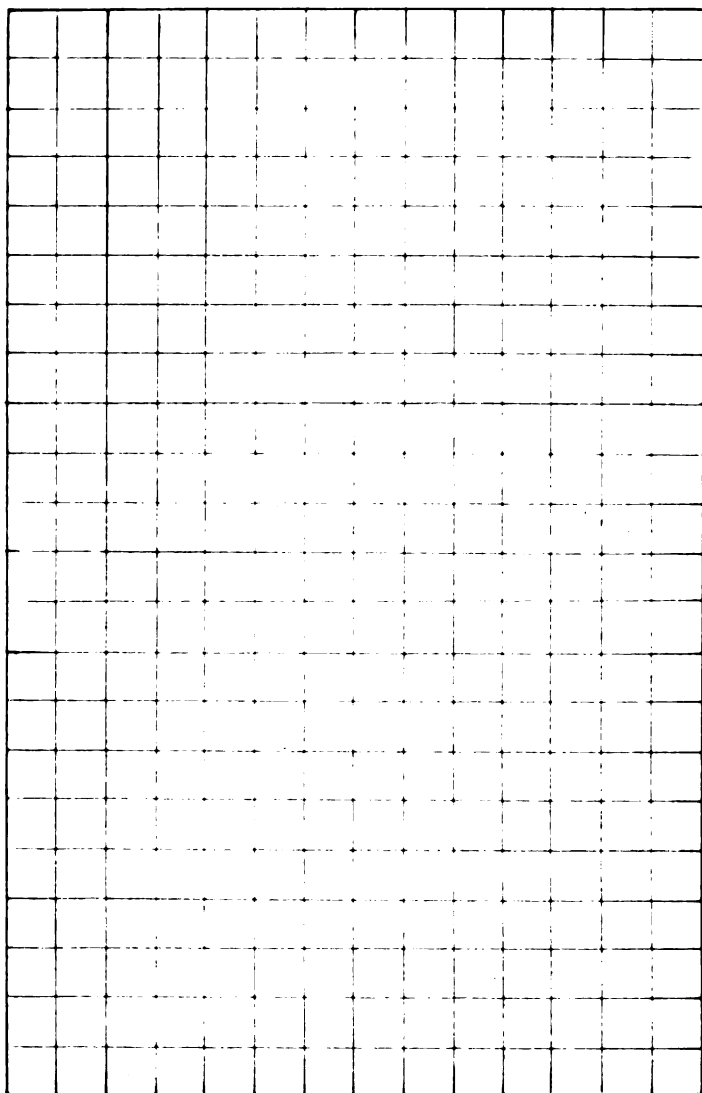
KITCHEN MACHINES



CHAIR

EFFICIENT KITCHENS CAN BEGIN ON PAPER!

Whether it's to be a new kitchen or a remodeled one, or if you are planning to add new pieces of equipment, put your ideas on paper. You will need a ruler, scissors, and a good sharp pencil, then follow these steps:



1 square equals 1 square foot.

1. Measure your kitchen accurately.
Be sure to indicate doors, windows, and other existing openings. If the kitchen is to be enlarged, include this additional area in your measurements.
2. Draw the kitchen measurements on squared paper, allowing 1 square of paper for every square foot of your kitchen floor space.
3. Arrange equipment on the plan.
A few of the basic pieces of equipment drawn to same scale as squared paper are shown on the preceding page. Cut them out and arrange on floor space to form a good working arrangement. Move them about in as many ways as possible to find the best arrangement.

4. Get accurate measurements from supplier for special equipment.
5. Check your arrangement for efficiency by drawing work routes, and food routes in colored pencil.

SUGGESTED READING

1. General

Hospital Food Service Manual, American Hospital Association, 18 E. Division St., Chicago, Ill., \$6.00.

Food and Nutrition Manual for Institutions, Margaret M. Walsh, Welfare Federation of Cleveland, 1001 Huron Road, Cleveland, Ohio, 190 p., \$2.00.

Eat to Live - A Long Happy Productive Life, Wheat Flour Institute, 309 W. Jackson Boulevard, Chicago, Ill., 25 cents.

2. Food Purchasing

Food Purchasing for Group Feeding, Government Printing Office, Washington, D.C., (Reprinted from Agriculture Handbook No. 16, Planning Food for Institutions), 25 cents.

Manual of Specifications for Canned Fruits and Vegetables, American Hospital Association, 18 E. Division Street, Chicago, Ill., \$2.50 (This book contains complete specifications for canned fruits and vegetables. Best choices for the average hospital are marked with an asterisk.).

Food Purchasing Guide, American Hospital Association, 18 E. Division St., Chicago, Ill., \$1.75. (Includes information on amounts to buy for 25 to 100 servings.).

3. Food Preparation

Handbook of Food Preparation, American Home Economics Association, 1600 Twentieth Street, N.W., Washington 9, D. C., 50 cents.

Fish Cookery for One Hundred, Superintendent of Documents, Government Printing Office, Washington, D. C., 30 cents.

133 Quantity Meat Recipes, National Livestock and Meat Board, Chicago, Ill., 25 cents.

Turkey, Poultry and Egg National Board, 185 North Wabash Ave., Chicago, Ill., Free.

Whole & Nonfat Dry Milk in Quantity Food Preparation, Agricultural Experimental Station and College of Home Economics, Michigan State University, Circular Bulletin 223, Free to residents of Michigan.

4. Sanitation and Safety

Sanitary Food Service, Public Health Service Publication No. 90, Supt. of Documents, U. S. Printing Office, Washington 25, D. C., \$1.50.
(Instruction Guide to be used in training food service personnel.)

Hospital Safety Manual, American Hospital Association and National Safety Council, 18 E. Division Street, Chicago 10, Ill., \$2.00.

Accident Facts, National Safety Council, 425 N. Mich.Ave., Chicago, Ill., 65 cents.

5. Diet Therapy

Diet Manual, University Hospital, Wahr Book Store, Ann Arbor, Mich., \$1.50.

Food Values of Portions Commonly Used, Bowes & Church, 7th & Delancy Streets, Philadelphia 6, Pa., 8th ed., 1956, \$2.50.

Simplified Diet Manual, The Iowa State College Press, Ames, Iowa, 1958, \$1.50.

Meal Planning with Exchange Lists, The American Dietetic Association, 120 North Michigan Ave., Chicago, Ill., 15 cents.

6. Quantity Recipes

Some commercial firms have available large quantity recipes, many of them are free:

Evaporated Milk Co., 307 N. Mich. Ave., Chicago, Ill.

General Mills, Inc., Department of Public Services, Minneapolis, Minn.

Kellogg Company, Home Economics Dept., Battle Creek, Mich.

National Canners Assoc., Home Ec. Div., 1133 20th St., N.W., Washington, D.C.

The Quaker Oats Company, Chicago 6, Illinois.

Wheat Flour Institute, 309 West Jackson Blvd., Chicago, Ill.

7. Menu Planning

The following monthly magazines and publications give helpful suggestions on menu planning:

Hospitals, Journal of the American Hospital Association, 16 E. Division St., Chicago, Ill.

Institutions Magazine, 1801 South Prairie Ave., Chicago 16, Ill.

Food Notes for Institutional Food Service, Michigan Dept. of Health,
Lansing 4, Michigan, Free on request.

8. Food Cost Management

Food Cost Accounting, Margaret Gillam, American Hospital Association,
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- Dietary Handbook for Small Hospitals and Nursing Homes, Montana Dietetic Association, Montana Agriculture Extension Station, Montana Board of Health, 1954.
- Master Menu Diet Manual, American Hospital Association.
- Quantity Recipes for Institutional Food Service, National Cannery Association, 1955.
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- Dietary Dept. Plans, Equipment, Supplies, Federal Security Agency, Public Health Service, Division of Hospitals, Washington, D. C., 1952.
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Know the Poultry You Buy, PA 170, U.S.D.A., Washington, D.C.

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Beef Facts for Consumer Education, U.S.D.A., U. S. Printing Office, Washington, D.C.

Using Canned Foods, National Canners Association, Washington 6, D.C.

Fish Cookery for 100, U.S.D.A., U.S. Printing Office, Washington, D.C.

Know the Eggs You Buy, U.S.D.A., Poultry Division, Washington, D. C.

Meat Buying Manual, National Live Stock and Meat Board, Chicago, Ill.

Food Purchasing Guide, American Hospital Association, 18 E. Division Street, Chicago, Ill.

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