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MEAT AND MEAT COOKERY

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Place of Meat in the Diet

A. Meat is valuable for:

1. The flavor of meat is especially attractive to all people. It is only good sense to eat foods which taste good, for taste and the enjoyment of eating are indispensable to efficient digestion. Over indulgence in any food because of attractive flavor carries with it undesirable results.

Meat can be used to good advantage in small quantities for conferring palatability on vegetable foods.

2. Meats contain proteins of high value.
3. Meats are rich in iron and phosphorous.
4. All meats contain more or less fat.

B. Meat is deficient in:

1. Mineral content, especially lime.
2. Vitamins (except vital organs)
3. Roughage

C. Avoid excessive meat in diet because:

1. Of all proteins meat is the most favorable for the growth of putrefactive bacteria in the intestine. (The toxic nature of the products formed exert an irritating action on the lining of the intestine and burden the liver and kidneys with their destruction and excretion.)
2. Meats are very high in acid forming elements, and should be combined with foods rich in bases of mineral nature to give best results in nutrition. These are supplied by vegetables and fruit.

- D. From the above it is indicated that meat does not make a perfect supplement to potato and cereals. The meat, potato, and cereal diet does not take care of the food needs adequately.

Meat Cookery

A. Heat Hardens Proteins.

1. Sear meat to retain juices.
2. Cook slowly to make tender.
3. Extract albumin and flavor by soaking in cold water.

- B. Connective tissue is the factor which determines the degree of toughness. Dry heat effects connective tissue very little. Low moist heat gelatinizes connective tissue.
- C. Heat Decomposes Fat.

Cook fats at a low temperature.

Remove fat from pan as fast as it fries out of meat.

- D. Tender Meats

Tender cuts are usually broiled or roasted.

In broiling or roasting, the object is to retain the juices by searing the outside quickly with hot dry heat. The heat is then lowered to finish the cooking.

Some people prepare both tender and tough cuts by frying. This is the least desirable method of cooking meat, because it usually makes it greasy. The temperature of the fat in frying is usually too low, and consequently the fat is absorbed, making the food greasy; or it is too high, causing the fat to decompose into undesirable products, which are irritating to the digestive tract. Any food, which has absorbed and is completely surrounded by fat, is not easily digested and assimilated. It is far better to broil tender meat than to fry it. A tough cut can never be made tender by frying.

- E. Tough Meats

The muscles are composed of bundles of tiny tube-like fibers, and when meat is cooked at a high temperature these little tubes containing the extractives and flavors burst, letting the juices run out; and a dry, tasteless meat is the result.

Meat when boiled becomes stringy because the connective tissue has been dissolved. The connective tissue should slowly combine with water and form a gelatinous tissue. It is the connective tissue that makes the meat tough. The muscles that are much used have more fully developed connective tissues and therefore require long, slow cooking to make it tender. The tougher or much used muscles are high in flavor because the exercise draws the blood to these centers, and consequently become enriched with flavors.

In cooking, unless the flavors and juices are to be extracted, as in soup, the outside of the meat should be seared by a high temperature to coagulate the albumin and juices; but the inner part should be cooked at a much lower temperature. In cooking both tough and tender cuts, the inner portion should be kept at a low temperature.

The pressure cooker is splendid for cooking tough meats.

F. Recipes

1. Brown Stew (tough cut)

Cut a lean beef into inch cubes, (the neck is a good piece to use.) Season pieces, dredge thoroughly with flour, and brown on all sides in a frying pan, using a little suet to prevent sticking and to give necessary fat. Add sufficient hot water to cover the meat, and when this has come to a boil, turn all into a double boiler and cook for three hours. One hour before the stew is finished, add any vegetables liked, cutting these also into cubes. (Potatoes require less time for cooking.) Tomato may be used in place of water.

2. Swiss Steak (Tough Cut)

1½ lbs. steak (2 inches thick)	1 ts. salt
from tougher portion of round)	1 ts. pepper
1 cup flour	1 tb. chopped onion

Wipe meat, place on meat board and beat flour into it with the edge of a saucer. Continue until the meat will hold no more flour. Place ¼ c. fat in a frying pan. Sear well on all sides in hot fat. Add 1 cup hot water. Cover pan and simmer one hour. Add seasoning and continue cooking ½ hour or longer, depending on the toughness of the meat. Serve with gravy in the pan. Tomato may be used in place of water.

3. Pan Broiled Steak (tender cut)

Have pan very hot. Wipe meat with damp cloth. Place steak in hot pan. Turn from side to side until well seared. Then cook more slowly until pink inside, turning often. If the steak is more than one inch thick, cook very slowly after it is thoroughly seared. Add salt and pepper just before taking from the pan. Place on hot platter. Add butter, garnish with sprigs of parsley, if you wish.

Steak 1 inch thick -- 8 to 10 minutes.

Steak 1½ inch thick -- 12 to 15 minutes.

Some Foods to Serve with Beef

Steak: Fried or raw onions, french fried potatoes, mushrooms, string beans, stewed carrots, greens.

Roast: Mashed, creamed or roast potatoes, sweet potatoes, corn, tomatoes, carrots, cabbage, greens.

Pot Roast or Boiled: Cream horseradish sauce, boiled potatoes, stewed tomatoes, cabbage, greens.

Cold Roast: Cream horseradish sauce, creamed potatoes, salad with french dressing.

Boiled Tongue: Boiled rice, carrots, buttered peas, greens.

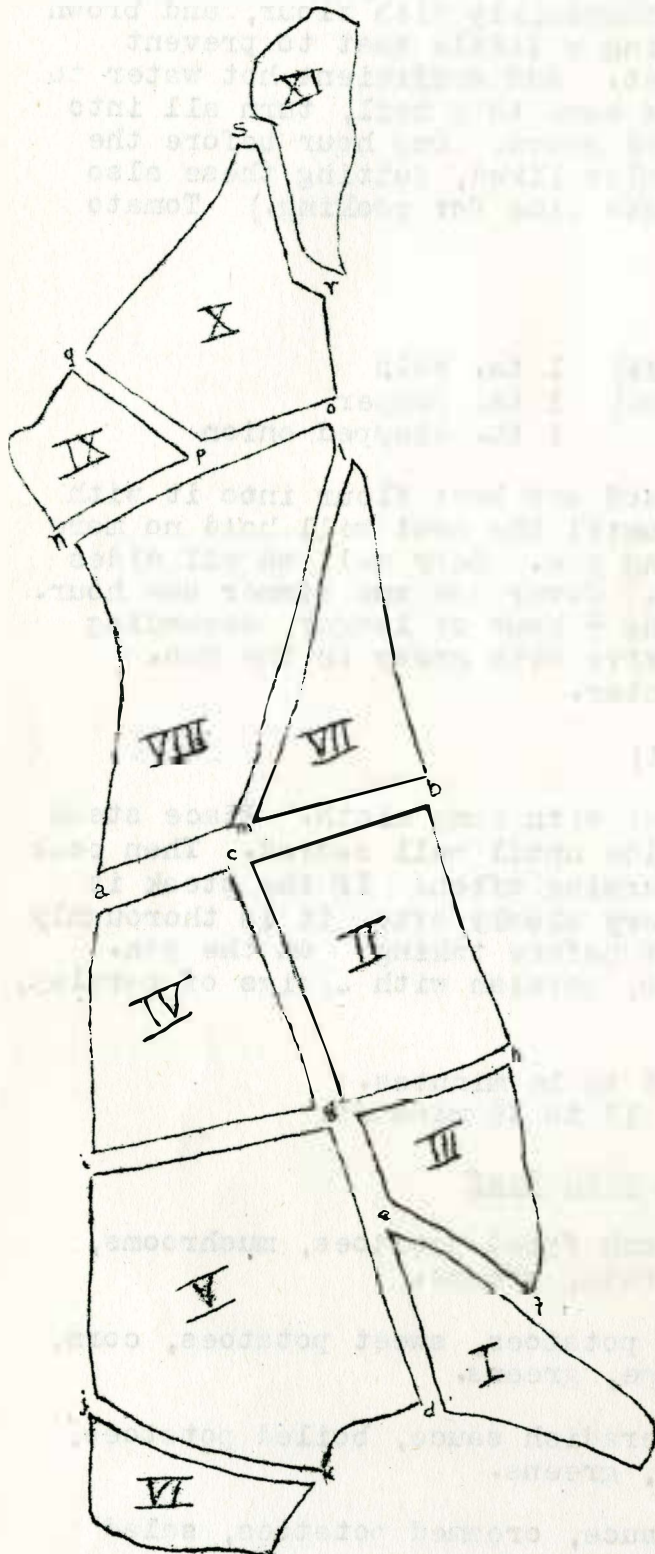
Creamed Chipped Beef: Baked potatoes, corn bread, toast, rice.

Stuffed Beef Hearts: Riced potatoes, browned parsnips, buttered beets.

Corned Beef: Cabbage, greens, parsnips, turnips, potatoes.

Liver: Bacon, greens, fried onions.

The Cutting up of a Side of Beef into the Principal Cuts.



In separating the fore quarter from the hind quarter, the cut a---b is made between the 12th and 13th ribs. The cut is made by sticking the knife between the ribs about the middle of the side. Cut upward, following curvature of the rib until the cartilage of the last rib is reached. After severing this, the cut should be curved slightly downward to the end of the naval, leaving about 4 inches to hold up the hind quarter. Continue the cut toward the backbone keeping the knife half way between the ribs. When the thick muscle of the back is reached, cut at right angles to the muscle so that about one-half inch will be cut from the rear of the next to last dorsal vertebra. Cut to the vertebra with knife and finish with the saw. When the right side is ribbed, the knife should be slanted so as not to cut the kidney fat.

Fore Quarter

The first cut is c---d. This separates the under side from the upper part. The starting point of this cut is determined by measuring from the inside of the backbone 8 to 11 inches to the rib. The exact point will be based on the size of the beef and the fleshing over the ribs. From this point the cut is straight across to the hollow of the arm.

The shin (I) is separated by cut e---f which is made along the connective tissue.

The plate is divided g---h between the 5th and 6th ribs into the naval plate (II) and the brisket plate (III)

Cut i---j separates the standing rib (IV) from the chuck (V) between the 5th and 6th rib. This removes the end of the shoulder blade.

The neck (VI) is trimmed off by cut j---k which is at the first joint. This removes the atlas bone.

Hind Quarter

The hind quarter is cut up by first removing the flank (VII) by cut l---m. This cut is made by following fairly close to the knuckle muscle of the round and follow approximately on the line of the kidney fat. The kidney fat and kidney are removed from loin (VIII).

The loin (VIII) is removed by cutting n---o. This cut is made by cutting thru the ball and socket joint approximately parallel to the cut, making the separation between the fore and hind quarter. Locate the projection of the femur or leg bone with a thin bladed knife, this is found about the intersection of the cuts between the rump (IV), round (X) and the loin (VIII). The cut should just miss this projection and slant enough to come thru about an inch in front of the pelvic or coupling bone. If the cut is made at the right place, a thin slab should be cut from the ball of the femur.

The rump (IX) is separated from the round (X) by cut p---q. The direction for this cut is found by cutting close to the pelvic bone and cutting off a point of the middle of the coupling bone and a thin slab from the upper side of the ball of the femur.

The shank (XI) is cut from the round (X) by cut r---s above the hock joint. The shank, however, is left on the round very often to make handling easier.

Characteristics and Methods of Preparing Cuts

The light weight continuous line in the diagram show where even and pot roasts can be cut and the broken lines indicate where steaks may be cut.

Fore Quarter

<u>Cut</u>	<u>Characteristics</u>	<u>Methods of Cooking</u>
Shin or (I) Arm	Upper part not much bone - solid meat - good flavor. Lower part - tough with tendon and bone.	About 3 fairly good steaks or small pot roasts. Remainder: soups, stews, croquettes, bologna meat.
Naval Plate (II)	Layers of fat and lean with bones (ends of ribs) in upper part.	Strips across ribs about 2 inches wide used as roasts as "short ribs of beef", steak, meat pies, croquettes, hamburger, corned beef.
Brisket Plate (III)	Similar to naval plate but better. Brisket part layer of juicy well flavored meat over fat and bone.	Same as naval plate.

<u>Cut</u>	<u>Characteristics</u>	<u>Methods of Cooking</u>
Prime Ribs (IV) or Standing Rib.	Choice part of fore quarter. Contains 7 ribs from 6th to 12th inclusive and end of shoulder blade. 9th of fat skewered. One and loth rib choice portion rib chest is too narrow. Tender, large, solid, lean muscle, "Eye of beef."	Oven roast. End of shoulder blade should be taken out and piece of fat skewered. One and loth rib choice portion rib chest is too narrow for good even roast. If animal is not thick flrshed saw across ribs at eye of beef, remove ends of ribs and skewer over roast. Or cut off the rib portion and use thick part for oven roast and the ends as short ribs of beef. They be boned and rolled.
Chuck (V)	About most economical cut of fore quarter. Bottom part and hind end solid meat with comparatively little bone. Toward neck part considerable bone. Well flavored. Parts fairly tender.	Roasts or steaks may be cut parallel to the ribs - known as chuck roasts or steaks. If from good beef comes favorably with standing rib. Roasts or steaks may be cut from under side and are known as arm roasts or steaks. Other parts boiling, pot roasting, stewing, braizing, hamburger.
Neck (VI)	Bone, tough, well flavored.	Soup, stew, minc meat.

Hind Quarter

<u>Cut</u>	<u>Characteristics</u>	<u>Methods of Cooking</u>
Flank (VII)	Coarse grained, tough no bone nor tendons, fine flavor.	Stewed or boiled. Broiled then braized.
Loin (VIII)	Lean, with fat on edges, tender, some bone. To the rear of pin or hip bone known as sirloin. Front of this, the porterhouse which contains tenderloin muscle and is considered the best.	Fine for steak and choice roasts.
Rump (IX)	Solid meat, somewhat coarse grained but fine flavor, and juicy. Large bone, quite a choice cut from which small roasts are obtained.	Roast and corned, boiled. Pelvic bone can be removed and cavity filled with fat for roast. Cut to advantage for large family.

<u>Cut</u>	<u>Characteristics</u>	<u>Methods of Cooking</u>
Round (X)	Top round-solid piece of juicy, fairly tender, lean, has thick piece of fat between top and bottom round. Bottom round similar to top but tougher some streaks of gristle.	Most economical steaks.
Shank (XI)	Fat, lean and bone; juicy but tough and full of tendons. Fine flavor.	Soup. Lean part be may removed for braizing.

Canning of Meat

Meat can be canned as successfully as fruit and vegetables if proper methods are employed. The canning of meats provides a way of disposing of the surplus meat of winter, for summer use when fresh meat is not so plentiful. It also affords a supply which can be drawn upon in cases of emergency. For detailed information secure Meat Canning Circular.

MEAT COOKERY

by
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WHAT TO HAVE READY BEFORE DEMONSTRATION STARTS		THE DEMONSTRATION	
Material	Utensils	What to do	Points to be brought out
1 steak (tenderloin or porterhouse or sirloin) Cut 1 inch thick. Salt Pepper Serving of butter	Frying pan Fork Platter Sharp Knife Bowl cold water clean cloth towel good burner	Dem. II Get stove or burner ready Place pan on to heat. Wipe off steak with clean cloth, wring out of cold water. Put meat in hot pan and cook. Place platter to warm.	Dem. I Why meat is valuable in diet. Page 1. In what ways is meat difficient. Page 1. Why meat, potatoes, and cereals not a perfect diet. Factors determining palatability of meat (ten- der or tough) Factor determining de- gree of toughness or tender- ness (connective tissue) How connective tissue is effected by heat. How prepare tender cuts. How prepare tough cuts. See page 2. Necessary that steak be at least 1 inch thick to: 1. Retain juice 2. To have small sur- face in proportion to whole. Page 3. To cook: 1. Hot pan to sear over quickly to retain juice. 2. Turn frequently to retain juice. 3. Lower temperature when well seared and browned.

WHAT TO HAVE READY BEFORE DEMONSTRATION STARTS		THE DEMONSTRATION	
Material	Utensils	What to do	Points to be brought out
<p>(Note: The way the work is divided up for the 2 demonstrators is merely a suggestion. In some cases it may be advisable for Dem. I to take care of "what to do" and Dem. II "Points to be brought out")</p>		Add salt and pepper a few turns before done.	Salt added shortly before taking from pan.
		Dem. I Place on warm platter Brush steak with piece of butter	Dem. II Little butter will give it a very juicy appearance.
		Cut for sampling	Bring out points of well cooked steak: 1. Juicy 2. Shallow surface 3. Lack of greasiness 4. Tastes good.
		Clean up table, etc.	Why not fry? Ways of cooking tough tough cuts P. 2 - 3
			Importance of having meat properly cut up. Answer questions.