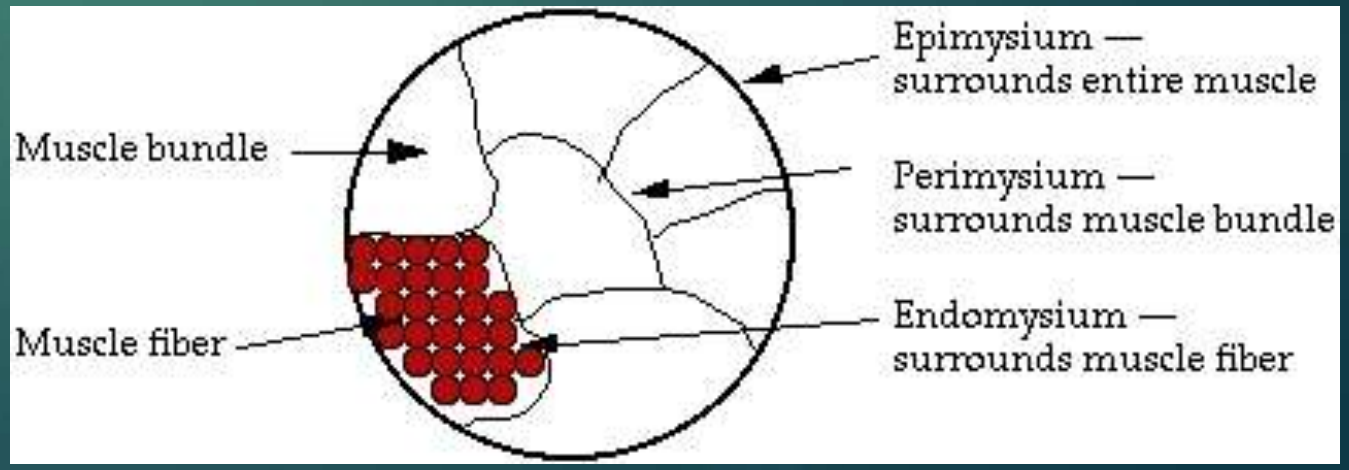
MEAT

THE TERM MEAT REFERS TO MUSCLEA OF WARM BLOODED FOUR LEGGED ANIMALS. THE CHIEF ONES BEING CATTLE,SHEEP NAD PIGS.MEAT ALSO INCLUDES THE GLANDS AND ORGANS OF THESE ANIMALS. MEAT PRODUCTS INCLUDE MANY OF THE BY- PRODUCTS FROM ANIMAL SLAUGHTER SUCH AS ANIMAL GUT USED FOR SAUSAGE CASINGS,THE FAT IN THE MANUFACTURE OF LARD,GELATIN AND OTHERS.

Structure of meat

- an individual muscle is made up of muscle fibres.the muscle is surrounded by a connective tissue sheet,the epimysium.within a muscle,fibres are grouped into bundles which vary in different muscles and determine to a certain extent the grain or texture of the raw meat.

- The connective tissue surrounded the bundles, the perimysium,varies in thickness between and within muscles. The individual muscle fibres within the bundles are also enclosed in a connective tissue framework,the endomysium.



Classes of meat

- Veal: it is the meat from cattle slaughtered 3 to 4 weeks after birth.
- Beef: meat of cattle over 1 year old.
- Mutton: flesh of young ovine animals of both sexes whose age is 12 months or under.
- Yearling mutton: carcasses of young sheep usually from 12 to about 20 months old.
- Mature mutton: flesh of both male and female of ovine specids that are 20 months in age at the time of slaughter.
- Pork: it is the meat of swine.good quality pork is obtained from animals between age of 3-12 months before the amount of fat becomes excessive.
- Sausages: made of ground or minced meat and are enclosed in casings.
- Organ meats: liver,kidnry,heart,thymus,pancreas, and brain.

COMPOSITION AND NUTRITIVE VALUE

PROTEINS OF MUSCLE

Intracellular protoplasmic proteins(83-90%) these are involved in contraction of muscle.

Myosin:60% proyein of the thick filaments.

Actin: this is the major protein of thin filaments and constituens 15-30% of myofibrils.

Tropomyosin: this is found in the filaments.

Troponin: a component of contractile system.

- structural proteins: (10-17%)- these are present in the structure of muscle.
  Collagen-it is abundant in tendons,skin ,bon,vascular system of animals and connective tissue sheaths surrounding muscles.
  ELASTIN-this is tougher than collagen and is a constituent of ligament.no change occurs during heating

Nutritive value-

carbohydrates: these are found in very small quantities in meat.the carbs found in meat are glycogen and glucose.
Protein: meat contains 15-20% protein of outstanding nutritive value. The lean meat contains about 20-22% proteins. Of the total nitrogen content of meat,95% is protein and 5% is the smaller peptides and amino acids

Water: water is the largest single compnent of muscle by weight.changes in the amount of water present and the extent to which it is bound by the muscle component is considered to influence the tenderness,texture,juiciness of meat,as well as the yeild of cooked meat.

Fat: the fat content of meat varies from 5 to 40% with the type,breed,and age of the animal.

Minerals: the mineral element occurs either as separate icons or ina variety of compounds within muscles.calcium and magnesium are essential components of the contraction- relaxation cycle. Iron is a part of the red pigment and so influences colour.
Zinc is found in one of the enzymes.
meat is a good source of iron and phosphorus
meat also contains sodium and pottasium. It is also an excellent source of some of the vitamin of the b complex.
Meat also contains protein hydrolyzing enzymes cathepsins and these are responsible for tge increase in tenderness of meat during ageing.