

## **Microfilament:**

- MICRO FILAMENT IS COMPOSED OF FINE FILAMENTS OF PROTEIN ACTIN.
- IN THE SKELETAL MUSCLE, PROTEIN FILAMENTS INTERACT WITH ANOTHER FILAMENTOUS PROTEIN, MYOSIN AND BRING ABOUT CONTRACTION OF THE MUSCLE
- ACTIN FILAMENT PROVIDE STRUCTURAL SUPPORT TO MICROVILLI
- MICRO FILAMENTS ARE INVOLVED IN SEVERAL CELLULAR PROCESSES PHAGOCYTOSIS, ENDOCYTOSIS AND CELL MOVEMENT

## Microfilaments



Figure 1

## Microtubules:

- Micro tubules are hollow tubules;the wall of tubule is composed of the protein tubulin.
- Each micro tubule is made of 13 protofilaments of tubulin protein.
- Protofilaments are consist of tubulin sub units.Each tubulin subunit consists of  $\alpha$ - and  $\beta$ -subunits.
- The micro tubule is an important component of centriole,celia and flagella.The centriole is composed of nine micro tubule triplets.celia and flagella is composed of nine doublets oriented around two additional microtubules (9 + 2 arrangement).

## Functions:

MICROTUBULES HELPS IN IN MAINTENANCE OF CELL SHAPE,INTRACELLULAR TRANSPORT AND FORMATION OF MITOTIC SPINDLES DURING MITOSIS.

