SULPHUR

Sulphur is present mostly in organic form in body .

- Methionine , cysteine and cystine are three Sulphur containing amino acids in the body .
- Proteins contain 1% of Sulphur by weight .

DIETARY REQUIREMENT

- No specific dietary requirement for Sulphur alone
- Adequate intake of Sulphur containing essential aminoacid methionine will fulfill body requirement
- SOURCES
- Food rich in methionine and cysteine are good sources of Sulphur .

FUNCTIONS

- S ulphur containing aminoacids are important constituents of body proteins .The disulphide bridges keep polypeptides units together e.g insulin ,immunoglobulins .
- Chondroitin sulphates are seen in cartilage and bone
- Keratin is rich in Sulphur and is present in hair and nail .

- enzymes and peptides contain _ SH group at the active site e.g glutathione .
- Co enzymes derived from thiamine ,biotin ,pantothenic acid and lipoic acid also contain Sulphur .
- Sulphates are also important in detoxification mechanisms e g production of indoxyl sulphate .

- If sulphates is to be introduced in glycosaminoglycans or in phenols for detoxification . It can only be done by phosphoadenosine phosphosulphate (PAPS)

- EXCRETION
- The Sulphur from different compounds is oxidized in liver to sulphate and excreted in urine .
- The urine contain inorganic sulphate (80 %) organic or conjugated (10 %) , oxidized Sulphur (10 %) .