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**Enzyme Therapy**

Introduction
• The role of enzymes in medicine as markers, diagnostic and
prognostic applications are widely known. These ...

Applications of therapeutic enzymes
• As specific detoxification agents in case of acute
chemical poisoning
• As antineopl...

Limitations of enzymes
 Avoiding rapid clearance of enzyme from
blood
 Improvement in purification technology
 Cost eff...

Enzymes used in Therapy
 Digestive enzymes
o chymotrypsin
o bromilain
o rennin
o papain
o cellulase
 DNase l
 Alginate ...

Digestive enzymes
Chymotrypsin:
Chymotrypsin is a proteolytic enzyme Naturally produced by the pancreas
of the human body....

DNase l
 Cystic fibrosis (CF) is one of the most commonly
occuring genetic diseases (1 in 2500 in northern
Europe)
 Cyst...

 Patients are susceptible to frequent lung infections and
some patients develop antibiotic resistance bacteria and
hence,...

Alginate lyase
Alginate, a polysaccharide polymer of β-D
mannuronate and α-L glucoronate, form an elastic
gel, which is re...

Adenosine deaminase
• Deficiency of ADA (adenosine deaminase), a
cytoplasmic enzyme found in high concentrations in
lympho...

Dihydrofolate reductase
• Methotrexate (MTX) is widely used as anticancer
drug damaging dihydrofolate reductase enzyme.
Th...

Lipase
 Gaucher's disease or Gaucher disease is a genetic disease in which a fatty
substance (lipid) accumulates in cells...

Streptokinase
 Streptokinase is the microbial enzyme derived from
the streptococcus species. The enzyme is
thrombolytic i...

Therapeutic enzymes
Enzymes Therapeutic application
Asperginase Leukemia
Lysozymes Antibiotic
Uricase Gout
Urease Renal fa...