

## **Protein converting carbo-hydrates into fat isolated**

In the United States, a biochemistry team from the Department of Veterans Affairs and UT South-western Medical Centre has identified a glucose-sensitive protein that converts high carbohydrate intake into body fat, especially when combined with a sedentary lifestyle. It was earlier thought that hormones directed this long-term process of metabolism. Researchers isolated the glucose-sensitive protein, dubbed the carbohydrate response element binding protein (ChREBP), that triggers the long-term process of transforming excess dietary carbohydrates into fat. Though rat liver was used in this study, the results are believed to reflect the human body's functions.

When people eat desserts, pasta, potatoes or other sugar and starch laden food beyond the body's energy and nutritional needs, these carbohydrates become a flood of glucose, and the liver converts the surplus glucose to fat. At some point, the glucose reaches a level that signals the ChREBP to start a chain reaction along a series of genes that, in turn, activate the synthesis of a dozen enzymes which catalyse the transformation of excess glucose into fat. Ongoing research is expected to lead to a drug that will inhibit the protein's response to excess glucose. (The Hindu Business line, 9 August 2001)