

# Drugs cast shadow over Tour de France

Following the expulsion of the Festina team from the Tour de France, the furore over the use of performance-enhancing drugs in competitive cycling continues to gather momentum. Some even claim that it is increasingly difficult to meet the incredible demands of the pro-circuit without using drugs

## Cyclists' drugs of choice

### Erythropoietin (EPO)

#### Natural production

Kidney hormone stimulates red blood cell production

#### Gains:

Increased oxygen-carrying capacity of blood boosts energy and stamina

#### Dangers:

High blood pressure and circulatory problems – at least 18 cyclists thought to have died from EPO abuse

## Human Growth Hormone

#### Natural production

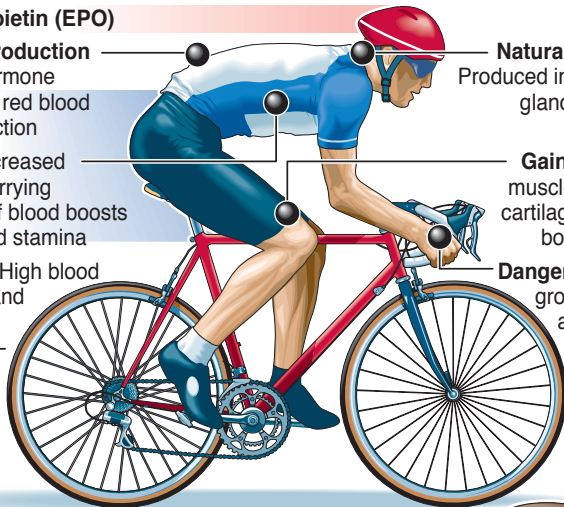
Produced in the pituitary gland to stimulate body growth

#### Gains:

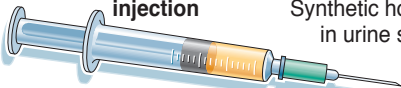
Increased muscle growth and cartilage production boosts strength

#### Dangers:

Abnormal growth of hands and feet, long term muscle weakness, high blood pressure



## Drugs applied by injection



## Detection

Synthetic hormones detectable in urine samples but difficult to distinguish from naturally occurring hormones

