

# Treatment of Genetic Disorders (page 609)

## 1. Genetic Screening....

Detecting a disorder with a test at birth. Ex. PKU, early intervention to prevent complications later.

## 2. Surgery....

Structural problems addressed using surgery . . . ex . . . . cleft palate....reconstructions, tumor removal, etc.

## 3. Environmental controls...

Minimize the effects symptoms of a disorder have on a person by avoiding environmental triggers...ex....diet changes, sun protection, etc.

## 4. Gene Therapy...

Normal, or altered, genes are inserted into the defective cells of an organism.

Sample of defective cells, cultured, virus carrying copies of a functioning gene attacks the cells, some incorporate the new gene, insert them into the patient, some take, function slowly returns.

### Ethics....

- who decides what's a "disorder" ?
- should we design people without flaws ?
- is it available for all, or just those who can pay ?
  
- could trigger a strong immune response, potentially fatal
- if not in the correct location, or expressed incorrectly, results could be worse than the condition
- could interfere with other genes, or be influenced by them

Somatic gene therapy...  
body cells altered

Germ Line Therapy...  
changing sex cells