

# Ethical aspects of genetic testing

Ethical problems in medicine have three basic principles:

- utility,
- respecting individual autonomy,
- Justice.

## Prenatal testing

- Testing at the level of embryos ( preimplantation genetic diagnosis ).
- The decision to **terminate a pregnancy** in the case of treatable or phenotypically mild fetal diagnoses (e.g. triple X syndrome ) – balancing the parents' right to decide on reproduction versus benefit for the affected fetus.
- **Gender selection** at parents' request.

## Genetic testing of disease predispositions

- Detection of individuals with a mutated allele in **late-onset diseases** – prevention versus psychological problems of positively tested individuals.
  - Certain diseases with late onset are possible to prevent ( hereditary tumor syndromes ) . [1]
  - The situation is more complicated with fatal diseases with late onset, in which prevention is not possible ( Huntington's chorea ) [2]

## Genetic testing of children

- If genetic testing does not bring a **clear benefit** for the child (e.g. confirmation of cystic fibrosis ), it is approached only at a time when the child is able to decide for himself whether he wishes to be tested (late adolescence or adulthood).
- Risk of psychological disorders; discrimination in the family, in society.

## Links

### related articles

- Ethical and legal aspects of medical genetics
- Ethics in perinatology
- Introduction to Ethics

Lecture Human Genome Project II (<https://www.medicalmedia.eu/cs/Detail/3407?returnUrl=https://www.medicalmedia.eu/cs/Detail/3407>) (Mgr. et Mgr. Marek Vácha, Ph.D.) on Medical Media.

## References

1. NUSSBAUM, Robert L, Roderick R MCINNES, and Huntington F WILLARD, et al. *Clinical Genetics: Thompson & Thompson*. 6th edition. Prague: Triton, 2004. 492 pp. ISBN 80-7254-475-6 .
2. ↑ ŽIDOVSKÁ, Jana. Genetics and ethics – current development, current status and outlook. Part I. *General Practitioner* [online] . 2008, year 85, vol. 4, pp. 236-239, also available from <<https://www.prolekare.cz/casopisy/prakticky-lekar/2005-4/genetika-a-etika-dosavadni-vyvoj-soucasny-stav-a-view-i-cast-5879>>. ISSN 1805-4544.

## References

- NUSSBAUM, Robert L, Roderick R MCINNES, and Huntington F WILLARD, et al. *Clinical Genetics: Thompson & Thompson*. 6th edition. Prague: Triton, 2004. 492 pp. ISBN 80-7254-475-6 .

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