

1. Definition of bioethics

The definition of bioethics is that it is a discipline responsible **for addressing different issues of the morality** of human beings, linked to the different actions and advances of biology as an experimental and functional science. Thus, **bioethics** is characterized by the incorporation of the vision and values specific to ethics when making decisions within the scientific, political, technological and philosophical fields of biology.

In the next boxes of this article we will focus on the main laws of bioethics, based on the main laws that constitute it.

2. Origin of the word bioethics and the promoters of bioethics

The term “bioethics” appeared in the 1970s in the United States in an article by the American oncologist Van Rensselaer Potter, entitled Bioethics , the Science of Survival [13], in a context of exponential development of scientific knowledge, particularly in the field of biology. The absence of real reflection regarding their application alarms Van Rensselaer Potter who then calls for the creation of a new science which would be based on the alliance of biological knowledge (bio) and human values (ethics). The word "bioethics" is used to designate the study of ethical issues raised by modern scientific advances (in particular genetics, medically assisted procreation, research on the human embryo, therapeutic cloning, but also abortion, euthanasia, etc.) but also to designate “the search for solutions to conflicts of values in the world of bio-medical intervention ”

- **A multidisciplinary approach**

This field of study has the particularity of being multidisciplinary: philosophy, sociology, biology, law and theology are involved. Indeed, the biologist but also the social worker, the lawyer and the religious have their say on medical biotechnologies or on questions of life and death.

- **Institutionalization of bioethics in the West: case of the United States**

In the United States, bioethics is studied primarily by government agencies (the Bioethics Commissions), research centers (the Hasting Center), research ethics centers (Institutional Review Board - IRB) and local clinical ethics committees (Health care ethics committees)

Institutionalization of bioethics in Europe: case of France

There are four main types of institutions in France: a government body: the National Consultative Ethics Committee – (CCNE), research centers (INSERM), research ethics centers (Consultative Protection Committees of people - CCPP) and local clinical ethics committees (A few hospitals have set up clinical ethics committees, but this network is much less important than in the United States. These are mainly the consultative committees for the protection of people (CCPP) who broadened their concerns to clinical ethics).

3. Principles of bioethics

To know what **bioethics is**, it is fundamental to know the main principles that govern it, because in these the function and role that bioethics has as a discipline are reflected. In summary, here are the **4 principles of bioethics**:

- **Principle of respect for autonomy:** this first principle of bioethics focuses on establishing what must always be respected in people's freedom of choice and decision. We consider each individual as a person without limits when making choices regarding their health and other issues related to biological sciences.
- **Law of beneficence:** from this law, bioethics aims to link the costs and benefits of all actions and decisions taken by humans in relation to the ethical values of a biological factor. The ultimate objective will be to aim for the benefit of the individual as well as to avoid any damage to third parties who could be involved directly or indirectly with these decisions.
- **Principle of non-maleficence :** it is very important to include in bioethics this principle focused on the prohibition and abolition of any action that leads to negative effects of different types, in one or more of the areas in which bioethics acts (biological, political, philosophical, among others).
- **Principle of justice :** the fourth and final principle of bioethics focuses on fairness, equality of opportunity and the fair and equitable sharing of responsibilities related to the costs, risks and benefits of bioethical decisions. It also takes into account the rights and materials involved in these decisions.

4. Bioethics important topics

In this box we will include some simple and common examples in which bioethics plays an important role for people to make decisions that are as ethical and appropriate as possible.

Discover our list of examples of bioethics to better understand it:

- Abortions.
- Euthanasia.
- Organ transplants.
- Organ, blood and/or bone marrow donation.
- Assisted reproduction.
- In vitro fertilization.
- Artificial insemination.
- Egg and sperm donation.
- Human and animal cloning.
- Testing of pharmaceuticals, cosmetics, tobacco and other chemicals on animals. To know more,
- Medical research, as well as biological, pharmacological and technological research on animals and humans.
- Human genetic engineering.
- Stem cell research and clinical trials.
- Use of medicines as a cure for diseases and treatment of pain.
- Nanotechnologies and reprogenetics .
- Animal law and the humanization of animals.
- Environmental ethics and sustainable development.
- Use of chemical and nuclear weapons.
- Use of renewable and non-renewable energies .
- Mitigation measures and/or measures to address climate change and the climate crisis.
- Protection and conservation of biodiversity and ecosystems.