

Frischzellen

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<http://www.cancer.org/treatment/treatmentsandsideeffects/complementaryandalternativemedicine/pharmacologicalandbiologicaltreatment/cell-therapy> (Link nicht mehr aktiv)

Cell Therapy

Other common name(s): cellular therapy, fresh cell therapy, live cell therapy, glandular therapy, xenotransplant therapy

Scientific/medical name(s): none

Description

In cell therapy, processed tissue from the organs, embryos, or fetuses of animals such as sheep or cows is injected into patients. Cell therapy is promoted as an alternative form of cancer treatment.

Cell therapy as described here is different from the many types of cell therapy that are available as part of proven cancer treatment, such as hematopoietic stem cell transplant and prostate cancer treatment that uses modified human cells. Research continues in this area.

Overview

Available scientific evidence does not support claims that cell therapy is effective in treating cancer or any other disease. Serious side effects can result from cell therapy. It may in fact be lethal—several deaths have been reported. It is important to distinguish between this alternative method involving animal cells and mainstream cancer treatments that use human cells, such as bone marrow transplantation.

How is it promoted for use?

In cell therapy, live or freeze-dried cells or pieces of cells from the healthy organs, fetuses, or embryos of animals such as sheep or cows are injected into patients. This is supposed to repair cellular damage and heal sick or failing organs. Cell therapy is promoted as an alternative therapy for cancer, arthritis, heart disease, Down syndrome, and Parkinson disease.

Cell therapy is also marketed to counter the effects of aging, reverse degenerative diseases, improve general health, increase vitality and stamina, and enhance sexual function. Some practitioners have proposed using cell therapy to treat AIDS patients.

The theory behind cell therapy is that the healthy animal cells injected into the body can find their way to weak or damaged organs of the same type and stimulate the body's own healing process. The choice of the type of cells to use depends on which organ is having the problem. For instance, a patient with a diseased liver may receive injections of animal liver cells. Most cell therapists today use cells taken from the tissue of animal embryos.

Supporters assert that after the cells are injected into the body, they are transported directly to where they are most needed. They claim that embryonic and fetal animal tissue contains therapeutic agents that can repair damage and stimulate the immune system, thereby helping cells in the body heal.

The alternative treatment cell therapy is very different from some forms of proven therapy that use live human cells. Bone marrow transplants infuse blood stem cells—from the patient or a carefully matched donor—after the patient's own bone marrow cells have been destroyed. Studies have shown that bone marrow transplants are effective in helping to treat several types of cancer. In another accepted procedure, damaged knee cartilage can be repaired by taking cartilage cells from the patient's knee, carefully growing them in the laboratory, and then injecting them back into the joint. Approaches involving transplants of other types of human stem cells are being studied as a possible way to replace damaged nerve or heart muscle cells, but these approaches are still experimental.

What does it involve?

First, healthy live cells are harvested from the organs of juvenile or adult live animals, animal embryos, or animal fetuses. These cells may be taken from the brain, pituitary gland, thyroid gland, thymus gland, liver, kidney, pancreas, spleen, heart, ovaries, testicles, or even from whole embryos. Patients might receive one or several types of animal cells. Some cell therapists inject fresh cells into their patients. Others freeze them first, which kills the cells, and they may filter out some of the cell components. Frozen cell extracts have a longer "shelf life" and can be screened for disease. Fresh cells cannot be screened. A course of cell therapy to address a specific disease might require several injections over a short period of time, whereas cell therapy designed to treat the effects of aging and "increase vitality" may involve injections received over many months.

Animal cell extracts are also sold in pill form as dietary supplements, usually called glandular supplements. These, too, allegedly travel to organs of the same kind in the body to promote healing.

What is the history behind it?

The Swiss physician Paul Niehans, MD, invented cell therapy in 1931. During a medical emergency, Dr. Niehans injected a solution containing ground-up parathyroid cells from a calf into a patient who had damaged parathyroid glands. The patient recovered, and Dr. Niehans attributed the improvement to the injection. He went on to apply the idea of animal–human cellular transfer to other diseases.

Dr. Niehans claimed that he treated more than 30,000 patients with cell therapy. He also claimed that the death rate from cancer among his patients who received cell therapy was 5 times less than that of the average population. He believed that injections of cells from animals resistant to cancer would increase cancer resistance in humans. A second physician announced similar findings thirty years later. Neither claim has ever been supported by research studies published in medical journals.

Cell therapy may be harmful and is not legally available in the United States. Because of safety concerns and lack of proof of its effectiveness, the U.S. Food and Drug Administration (FDA) has banned the import of cell therapy products into the country. The treatment is provided in clinics and spas in Europe, Mexico, and the Bahamas.

What is the evidence?

None of the therapeutic success claimed by cell therapists has been documented through scientific testing and published in peer-reviewed medical journals. Claims of the therapy's success take the form of individual cases, testimonials, and publicity issued by practitioners of the therapy. Even supporters of cell therapy admit they do not know how cell therapy works in the body. No reliable evidence has been published in medical journals to support the claims of cell therapy.

Are there any possible problems or complications?

These substances may have not been thoroughly tested to find out how they interact with medicines, foods, or dietary supplements. Even though some reports of interactions and harmful effects may be published, full studies of interactions and effects are not often available. Because of these limitations, any information on ill effects and interactions below should be considered incomplete.

Cell therapy may be dangerous, and several patient deaths linked to the therapy have been reported in the medical literature. Patients can contract bacterial and viral infections carried by the animal cells, and some have had life-threatening and even fatal allergic reactions. Other reports list complications such as brain swelling or the immune system attacking blood vessels or nerves following cellular treatment. Serious immune system reactions resulting in death have also been reported. Women who are pregnant or breast-feeding should not use this method, as its possible effects on a fetus are unknown.

Relying on this type of treatment alone and avoiding or delaying conventional medical care for cancer may have serious health consequences.

References

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Note: This information may not cover all possible claims, uses, actions, precautions, side effects or interactions. It is not intended as medical advice, and should not be relied upon as a substitute for consultation with your doctor, who is familiar with your medical situation.

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