

What is Fresh Cell Therapy?

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Fresh cell therapy- also known as cell therapy, cellular therapy, live cell therapy and glandular therapy- is a procedure that involves injecting cells or cell components of animals, usually sheep, into humans. Practitioners of fresh cell therapy believe that the procedure can have a healing and rejuvenating effect on the human body.

Fresh cell therapy is said to have a relatively long history. Some practitioners of fresh cell therapy refer as far back to the 16th century, to Paracelsus' concept of 'like cures like'¹. However, most practitioners refer to Paul Niehans, a Swiss doctor, as 'the father of cell therapy'². The story goes that in 1931, Niehans was called in to treat a patient who was suffering from convulsion because her parathyroid glands had been removed by accident during surgery. On his way to the hospital, Niehans picked up parathyroid glands of a freshly killed calf. Upon seeing the patient's condition, Niehans realised that he would not have time to perform a full organ transplantation and decided to slice up the calf's parathyroid glands, mixed them with solution and injected the patient with the solution. The patient reportedly stopped convulsing. Not only that, she reportedly made a full recovery and continued to live many more years, well into her 90s. Niehans then went on to treat many patients with his cell therapy method, including well-known personalities such as Pope Pius XII³. Although cells taken from freshly slaughtered animals were originally used, and continue to be used today, some practitioners also now use freeze-dried cells. Some have also developed cell therapy products to be taken orally.

How does this type of cell therapy work? Fresh cell therapy is said to be based on the principle of 'like cures like', therefore cells from specific animals' organs are injected into patients to treat specific conditions e.g. liver cells to treat liver conditions. Practitioners of fresh cell therapy believe that cells are 'organ specific' and not species specific and therefore cells sourced from animals can be used. They also believe that fresh cell therapy improves not only the function of specific organs but also revitalises the entire body. However, no one has been able to explain the precise mechanism of how this type of cell therapy works. Practitioners say it is based around the belief that young cells can "stimulate the body's own healing and revitalising powers into action."⁴

Fresh cell therapy is not uncontroversial. Critics say that the scientific basis behind the treatment is, at best, questionable. They also point out that the claimed benefits of this type of cell therapy have not been proven in clinical studies and there may also be negative side effects (see e.g. Goebel, Walther and Meuth, 1986; Last 1990). In fact, many countries ban the practice of fresh cell therapy and the

¹ See e.g. <http://www.villamedicathailand.com/villaEN/cell-know.html#villa2>, <http://www.laprairie.ch/en/clinique-la-prairie/history>,

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³ <http://www.laprairie.ch/en/clinique-la-prairie/history/key-dates>

⁴ <http://www.villamedicathailand.com/villaEN/cell-know.html#villa2>

importation of fresh cell therapy products intended for injections. Professional bodies, such as the American Cancer Society, also advise people not to seek the treatment⁵.

Fresh cell therapy is, however, permitted in some countries, most notably in Switzerland and Germany. In 1997, the German Ministry of Health did ban fresh cell therapy, citing negative side effects, unproven benefits and a fear that a sheep form of BSE might develop⁶. However, in 2000, the Constitutional Court ruled that the 1997 ban was void, not because the scientific basis behind the 1997 decision had changed, but because the ban violated professional freedom of medical practitioners⁷. Under Article 74, medical practitioners are entitled to use such drugs in their own clinics, though they are not allowed to produce and circulate cell therapy products outside of their own clinics. At the moment, fresh cell therapy clinics are regulated under provincial governments in Germany. Despite the controversy and the steep price tag- a four-day stay at one German clinic costs 15,000 Euros- these European clinics have become popular medical tourist destinations for some of the rich and famous in Asia. Indeed, many celebrities and politicians in Thailand and the Philippines, for example, have spoken to the media about fresh cell therapy and its anti-aging and rejuvenating effects⁸.

Another controversy involves the issue of whether this type of cell therapy is stem cell therapy. Some practitioners of fresh cell therapy claim that fresh cell therapy is 'the mother of stem cell therapy'⁹ and regularly make references to stem cell when discussing their practice. However, scientists working in the field of regenerative medicine deny that fresh cell therapy is stem cell therapy. They do not believe that the solutions of injected into patients contain any viable stem cells at all. Critics accuse practitioners of fresh cell therapy who link their practice to stem cells of exploiting the public interest in stem cell science to increase the appeal and credibility of their own fresh cell therapy practice.

References

Goebel, H H, Walther, G & Meuth, M. (1986). Fresh cell therapy followed by fatal coma. *Journal of Neurology* 233 (4): 242-7.

Last, P M. (1990). Cell therapy: A cruel and dangerous deception. A drama in three acts. *Journal of Paediatrics and Child Health* 26 (4): 197-9.

⁵ <http://www.cancer.org/treatment/treatmentsandsideeffects/complementaryandalternativemedicine/pharmacologicalandbiologicaltreatment/cell-therapy>

⁶ <http://www.gesetze-im-internet.de/frischzv/BJNR043200997.html>

⁷ <http://www.bundesverfassungsgericht.de/en/press/bvg18-00.html>

⁸ E.g. <http://www.philstar.com/newsmakers/2013/05/02/937204/secret-no-more>, <http://www.nationmultimedia.com/national/Wealthy-75-yr-old-seeks-fountain-of-youth-30192789.html>

⁹ <http://scienceblogs.com/insolence/2012/07/24/another-cell-therapy-quackery-for-autism-rears-its-ugly-head/>