

Acupuncture Benefits In Vitro Fertilization: Where's the Proof? By Michelle Buchanan, Certified Acupuncturist

In April 2002, ground-breaking German research evidenced acupuncture increases ongoing pregnancy rates over 60% for women undergoing in vitro fertilization (IVF)¹. This was the first randomized, controlled, clinical study proving acupuncture significantly increases the odds of success for women undergoing Western reproductive treatments. Patients, doctors, and acupuncturists saw the benefits of integrating modern infertility treatments with the ancient health care system of acupuncture.

Since the first published study in 2002, questions about what other effects may be seen when combining acupuncture and in vitro fertilization were beginning to be looked at. Researchers from all over the world have been contributing controlled studies evaluating the effects of acupuncture and modern infertility treatments.

A recently published study from Denmark demonstrated similar results of increasing pregnancy rates over 60% for women undergoing IVF². Both studies were based on receiving acupuncture immediately before and shortly after the embryo transfer. Both studies utilized acupuncture points believed to increase blood flow to the uterus and strengthen the ovarian-pituitary connection.

A recently published controlled study from Germany and China established a 106% increase in ongoing pregnancy rates for women receiving acupuncture during the luteal phase of an IVF cycle³. Women in this study received acupuncture based on principals of traditional Chinese medicine to strengthen their constitution and encourage pregnancy.

In Australia, another controlled study looked at the effects of three acupuncture sessions versus sham acupuncture for women undergoing IVF. The study showed an increase over 50% in ongoing pregnancy rates for women who received the acupuncture. The rates improved from 18% in the sham-acupuncture group to 28% in the acupuncture group. Although these increases are not considered statistically significant, they did conclude acupuncture is safe for patients undergoing IVF⁴.

¹ "Influence of acupuncture on the pregnancy rate in patients who undergo assisted reproduction therapy": Paulus, *et.al.* Fertility and Sterility Vol: 77, No. 4, APRIL 2002

² "Acupuncture on the day of embryo transfer significantly improves the reproductive outcome in infertile women: a prospective, randomized trial": Westergaard LG, *et.al.* Fertility and Sterility 2006 Apr 4; [Epub ahead of print]

³ "Effect of acupuncture on the outcome of in vitro fertilization and intracytoplasmic sperm injection: a randomized, prospective, controlled clinical study": Dieterle S, *et.al.* Fertility and Sterility 2006 Apr 7; [Epub ahead of print]

⁴ "Influence of acupuncture stimulation on pregnancy rates for women undergoing embryo transfer": Smith C, *et.al.* Fertility and Sterility 2006 Apr 4; [Epub ahead of print]

In Colorado, a retrospective study of “poor responders” to IVF found a 39% increase in IVF pregnancy rates for poor responders receiving acupuncture prior to and after the embryo transfer⁵. Additionally, poor responders receiving acupuncture had the same pregnancy rates as normal prognosis patients. Factors indicating “poor responders” included elevated FSH, length of time infertile, poor sperm morphology, or poor endometrial lining.

In an effort to recommend acupuncture as a routine method with IVF and intracytoplasmic sperm injection (ICSI), the Division of Reproductive Endocrinology and Infertility, Department of Obstetrics and Gynecology, University of Witten/Herdecke, Dortmund, Germany is inviting reproductive clinics around the world to participate in a large scale study. Hopefully this will provide a standard acupuncture protocol and remove doubt regarding the efficacy of adding acupuncture to Western infertility treatments.

For male infertility, a study in China indicated a statistically significant increase for men receiving acupuncture for certain sperm abnormalities. Acupuncture twice a week for five weeks increased the percentage and number of sperm without ultrastructural defects. Improvements were seen in abnormal sperm shapes. However, sperm pathologies in the form of apoptosis, immaturity, and necrosis showed no statistically significant changes after the acupuncture treatments⁶.

The seminal fluid should be rich in antioxidants and in an alkaline state for the sperm to survive the acid levels normally found in the vagina. Free radicals in the seminal fluid can easily damage the sperm, lowering motility and morphology, causing cell death and genetic changes. WebMD summarized several controlled studies on male infertility and nutritional supplements⁷. Results indicated supplementing with vitamins and antioxidants has been proven to increase sperm counts, morphology, and motility.

Other well-known acupuncturist authors contributing to treatment of infertility with acupuncture are Dr. Randine Lewis, Jane Lyttleton, and Dr. Lifang Liang. In 2004, Dr. Randine Lewis published “The Infertility Cure,” explaining how traditional Chinese medicine, including acupuncture and Chinese herbal therapy, restores health and promotes pregnancy. Also in 2004, Jane Lyttleton published “The Treatment of Infertility with Chinese Medicine” for practitioners. Lyttleton summarizes 20 years of experience in China treating gynecological problems and infertility. In 2002, Dr. Lifang Liang published “Acupuncture & IVF, Increase Your Success Rates by up to 60%.” This book is a guide for practitioners complementing and enhancing Western IVF treatments.

⁵ “Acupuncture & IVF poor responders: a cure?”: Magarelli et.al. Fertility and Sterility Vol: 81, Supplement 3, April, 2004

⁶ “Quantitative evaluation of spermatozoa ultrastructure after acupuncture treatment for idiopathic male infertility”: Pei *et al.* Fertility and Sterility Vol: 84, Supplement 1, July 2005

⁷ WebMD, “Getting Pregnant: Ways to Improve Your Fertility”, by Colette Bouchez, October 3, 2005

The acupuncture profession is currently raising the standards for practitioners treating infertility. In October 2005, the inaugural planning session for the American Board of Oriental Reproductive Medicine (ABORM) took place. The board will be establishing minimum skills and knowledge related to treating infertility. After passing a written exam, acupuncturists will become board-certified in Oriental reproductive medicine, and can promote themselves as specialists. A list of board certified acupuncturists will be circulated to reproductive endocrinologists and the American Society of Reproductive Medicine. Until this referral list is complete, locating an acupuncturist specializing in treating infertility can be difficult. Asking appropriate questions to potential acupuncturists regarding fertility treatments is critical when screening for the right practitioner. Inquire about what percentage of their practice is treating infertility and their familiarity with IVF procedures and Western medications.

