

THIRD EDITION

In Vitro Fertilization

The A.R.T.* of Making Babies

*ASSISTED REPRODUCTIVE TECHNOLOGY



Geoffrey Sher, M.D.

Virginia Marriage Davis, R.N., M.N.

Jean Stoess, M.A.

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This book is printed on acid-free paper.

*This book is dedicated to the memory of
Virginia Marriage Davis, R.N., M.N.,
one of the co-authors of previous editions of the book,
who died recently of breast cancer.*

*Virginia was instrumental in developing and refining the
IVF program at the Northern Nevada Fertility Center in Reno, NV,
upon which the material in this book was originally based.*

*As nurse-coordinator of the program, Virginia was the ultimate
patient advocate. Her unfailing efforts to make the IVF experience
as positive as possible for the infertile couple, whether or not they
had a baby, and the understanding and warmth with which she
interacted with them are reflected in many of the quotes throughout
this book, such as her comments about the emotional toll that
induction of ovulation imposes on women and the importance of
using visualization for relaxation during embryo transfer,
as well as the quote about the positive aspects of the process by a
woman who underwent IVF but was unable to conceive.*

*Virginia Marriage Davis was a medical practice consultant,
family nurse practitioner, and lecturer who spoke
internationally about infertility and women's reproductive rights.
She is survived by her husband and two children.*

FOREWORD

by Nancy Hemenway

Designer egg auctions, cloning, and “test-tube babies” are all “hot topics” used by the media to fuel the controversial fires surrounding infertility treatment options. More than 5 million couples are faced with the prospect of navigating and filtering a colossal maze of information and misinformation in order to successfully build their families. This winding road to family can be extremely lonely, physically demanding, and emotionally draining. Dr. Geoffrey Sher is a cool oasis and breath of fresh air for couples embarking on this exhausting journey.

Dr. Geoffrey Sher, executive medical director of Sher Institutes for Reproductive Medicine, practicing in Las Vegas, Nevada, and New York, New York, is one of a kind. He is entrepreneurial, energetic, passionate, and compassionate in his approach to both the science and medical aspects of reproductive medicine. Dr. Sher’s book *In Vitro Fertilization, the A.R.T. of Making Babies*, with coauthors Virginia Marriage Davis, R.N., M.N., and Jean Stoess, M.A., is a beacon and road map for those plotting their treatment course.

The A.R.T. of Making Babies empowers the individual with reliable information, in down-to-earth language. Sher’s forward-thinking and frank dialogue tackles difficult and controversial topics with honesty and integrity. Together the authors further the idea that working in tandem with one’s physician to build a family should be the rule—not the exception.

Over the last 15 years, I have been an advocate, educator, a patient, a consumer, and, finally, after years of navigating the infertility labyrinth, a parent twice blessed. I am a survivor of many infertility battles and the cofounder and executive director of the InterNational Council on

Infertility Information Dissemination, Inc. (INCIID—pronounced “inside”), the world’s largest infertility advocacy organization. I’ve worked alongside some of the leading names in the field of reproductive medicine. Yet there is none I am more honored to call friend and colleague than Geoffrey Sher, M.D.; a man of many talents, who has a clear vision for the future.

FOREWORD

by Pamela Madsen

Innovative, insightful, skillful and compassionate. It is this rare combination that distinguishes Dr. Geoffrey Sher and has earned him the respect of peers and patients alike. His creativity in the battle against infertility goes beyond the science and practice of assisted reproduction. It encompasses patient education and access to care. Indeed, the Sher Institutes for Reproductive Medicine pioneered risk-sharing, a once-controversial financing arrangement that makes assisted reproductive technology (ART) treatments more affordable.

As executive director and founder of the American Infertility Association (AIA), the largest infertility patient organization in the United States, I've had the pleasure of working with Dr. Sher. His dedication to patient welfare is unquestionable.

The ART of Making Babies, coauthored with Virginia Marriage Davis, R.N., M.N., and Jean Stoess, M.A., is true to Dr. Sher's convictions. With its clear language and conversational tone, the book reflects Dr. Sher's belief that communicating with patients enables them to become their own best advocates and partners in care.

The reliable and comprehensive information within these pages is invaluable to the thousands of people who find themselves confused, lost, and frightened by infertility. With honesty and empathy, the authors make even the most complex technical medical material accessible and understandable. They tackle the thorny issues of money, insurance, emotion, and ethics with a generosity of spirit that not only raises the tough questions but provides some tools for dealing with them as well.

As a veteran of the infertility wars, I can say without hesitation that this book is a resource treasure. Read it and take heart.

PREFACE

Innovators are rarely received with joy, and established authorities launch into condemnation of newer truths; for at every crossroad to the future are a thousand self-appointed guardians of the past.

—Betty MacQuitty, *Victory Over Pain: Morton's Discovery of Anesthesia*

In vitro fertilization (IVF) has come a long way since 1978, when Louise Brown, christened “the world’s first test-tube baby” by the press, was born in England. The first in vitro fertilization program in the United States was introduced at the Eastern Virginia Medical School at Norfolk in the late 1970s. Now, about 400 clinics throughout the United States offer IVF, with varying degrees of reported success.

In vitro fertilization literally means “fertilization in glass.” Traditionally known as in vitro fertilization and embryo transfer (IVF/ET), the procedure is more commonly referred to simply as in vitro fertilization, or IVF. (The term IVF will be used throughout this book instead of the more cumbersome IVF/ET.)

IVF is composed of several basic steps. First, the woman is given fertility drugs that stimulate her ovaries to produce as many mature eggs as possible. Then, when the ovaries have been properly stimulated, the eggs are retrieved by suction through a needle inserted into her ovaries. The harvested eggs are then fertilized in a petri dish in the laboratory with her partner’s or a donor’s sperm. Several days later, the fertilized egg(s)—now known as embryo(s)—are transferred by a thin catheter through the woman’s vagina into her uterus, where it is hoped they will grow into one or more healthy babies.

It is essential that the infertile couple and their physician identify the cause of the infertility in order to determine the most appropriate form of treatment. This does not mean that IVF should be regarded as a

treatment of last resort. It may well be that IVF offers the best hope for a healthy pregnancy. At most reputable IVF centers, the chance of a woman becoming pregnant with IVF is much greater than that of a fertile woman conceiving (without treatment) in any given month of trying. Nevertheless, the couple should understand that IVF is not everything to everyone and that some women never get pregnant through IVF, no matter how many times they try.

Many infertile couples who have experienced repeated disappointments over the years in their attempts to conceive have become desperate. Most have previously tried a variety of unsuccessful procedures: fertility drugs for the woman and/or man, medications to treat various hormonal problems, nonsurgical alternatives such as artificial insemination, and pelvic surgery to repair anatomical defects. All these couples look to IVF as a promising procedure that might help them conceive after all of their other attempts have failed.

Yet, of the more than 2.5 million couples in the United States for whom IVF offers the best option for pregnancy, less than 250,000 undergo the procedure annually. Clearly, eligible infertile couples in the United States are not even coming close to tapping into the potential of IVF. Why is this so?

One reason is that some people still consider IVF to be experimental. However, the evidence proves otherwise—about 300,000 IVF babies have already been born in the United States. Yet the public, in company with many members of the medical profession, still knows relatively little about IVF beyond the way it is characterized by the media.

People get a distorted idea about IVF when they turn on the television and see a slide of a test tube with a baby inside. By no means either a test tube or a baby are involved at that point. There are just a momentary couple of days when fertilization takes place outside the body, and then the embryo(s) is placed in the woman's uterus and begins to grow there. The phrase *test-tube baby* is a convenient handle for the media, but it misleadingly implies that the whole process occurs outside the body, which is not true.

Unfortunately, consumers find it difficult to get much in-depth information about this exciting procedure. (The term *consumers* is

used here to mean both infertile couples and physicians who refer their patients to a particular program.) Currently, no credible source provides prospectively audited, verifiable information about success rates obtained from IVF programs in the United States. As a result, people trying to learn about IVF often feel as though they are stumbling in the dark.

Several national organizations, including the Society for Assisted Reproductive Technology (SART), an affiliated society of the American Society for Reproductive Medicine (ASRM), and a number of support groups for infertile couples provide limited information about IVF and related procedures. SART was formed in 1988 under the umbrella of the ASRM, which is primarily made up of physicians but also includes laboratory personnel, psychologists, nurses, and other paramedical personnel interested in infertility.

SART provides a list of IVF programs in the United States, but it does not recommend or endorse any specific programs. Instead, SART encourages consumers to contact IVF programs individually for more information. (Society for Assisted Reproductive Technology, 1209 Montgomery Highway, Birmingham, AL 35216; telephone: (205) 978-5000; fax: (205) 978-5015; Web site: <http://www.sart.org>.)

Aside from the problem of insufficient information, another obstacle to widespread acceptance of IVF is its high cost. IVF is relatively expensive—\$7,000 to \$15,000 per procedure, depending on the program.

Many couples pass up IVF because of the financial burden, although it may be the most appropriate treatment for them. They simply can't afford it. Some states have passed laws requiring insurance companies to reimburse in total for IVF, and several others are considering similar legislation. Nevertheless, we must inform consumers that a new form of payment for IVF services known as Outcome Based Reimbursement (OBR) promises to make IVF services more affordable. More than 70 IVF programs in the United States currently offer OBR in one form or another, and the number is growing. (See chapter 16 for a discussion about OBR and the need for insurance reimbursement for IVF.)

Yet we must also warn consumers that the outlook on IVF-related issues is not likely to improve for some time. IVF will remain an

expensive procedure. But by researching the IVF situation for themselves, couples will be able to answer these fundamental questions: (1) Are we eligible for IVF? and (2) How do we select the program that will give us the best results?

This book is designed to help answer these critical questions. It describes IVF and some other assisted reproductive technology (ART) procedures; outlines a variety of emotional, physical, financial, and moral/religious issues; and highlights points that should be considered when deciding whether IVF or another high-tech procedure is indeed the most appropriate option. We do not offer any judgments relating to ethics, religion, or morality. These kinds of decisions are private matters that must be resolved by each couple in their own way. We do not intend to imply that our approach is the only acceptable way and/or should be rigidly followed. Our function is to recommend, to inform, to educate, and to serve—but never to dictate.

We are particularly cognizant of the fact that many women who do conceive following IVF may have pregnancies that are at risk. Going from infertility to family can be extremely traumatic from an emotional, psychological, and physical point of view. One of the ways we prepare couples is by providing them with as much information about infertility, as well as IVF and related procedures, as they need. We believe that being as knowledgeable as possible helps them cope with the roller-coaster experience they will undergo.

Accordingly, we will be glad to provide the readers of this book any information they might request about infertility. To request this material, call (800) 780-7437 or obtain additional information by accessing the Sher Institutes for Reproductive Medicine (SIRM) Web site at www.haveababy.com. *In Vitro Fertilization: The A.R.T. of Making Babies* may also be purchased via the Internet at <http://www.factsonfile.com> or www.amazon.com.

Finally, we wrote this book to help consumers develop and maintain realistic expectations about IVF. Realistic expectations revolve around the best and the worst possible scenarios; but all infertile couples should prepare themselves for the worst, just in case. However, by planning an effective strategy, asking the right questions, and evaluating the answers properly, candidates can determine whether they are eligible

for IVF and can find the most appropriate program. As a 35-year-old new mother told us, doing that homework does pay off:

I must have spent at least three hours talking with my own physician, trying to find out where to go for IVF. It was so frustrating not being able to find anyone who could give me any real answers. Several times I was tempted to go to the IVF clinic nearest us just because it was so convenient. But, thank God, I did my homework as thoroughly as I knew how. I must have called up fifteen different programs. I asked a lot of questions about success rates and what it was like to go through their programs, and then I had to sort everything out. I finally found a great program—and now we have a beautiful little girl who is the joy of our lives. I can hardly remember what life had been like without her. It was worth all that effort.

—Geoffrey Sher, M.D.

UNITS OF MEASUREMENT

The following abbreviations for units of measurement are used in this book.

cc	cubic centimeter
cm	centimeter
mcg	microgram
mg	milligram
miu	milli-international unit
ml	milliliter
mm	millimeter
ng	nanogram
pg	picogram

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