

A Change of Seasons

As we bid goodbye to summer and embrace autumn, we are pleased to introduce the third issue of **USC Fertility** Success News, a newsletter we created to reach out to our patients and physician partners—to connect, communicate, and educate.

Much has happened at **USC Fertility** since our last edition. Without a doubt, the biggest transformation is the addition of Dr. Kristin Bendikson to the **USC Fertility** family. Raised in Northern California, Dr. Bendikson graduated with honors from UCLA with a B.S. in psychobiology, and earned her medical degree from New York University. After finishing her residency at Harvard Medical School, she completed her subspecialty training in Reproductive Endocrinology and Infertility at the internationally renowned Center for Reproductive Medicine and Infertility at Cornell University Medical College, under the direction of Zev Rosenwaks, M.D. It was during her years at NYU that Dr. Bendikson first became friends with **USC Fertility's** Dr. Karine Chung. When the decision was made to add a physician to our team, we placed one call and one call only: to Dr. Bendikson. We're thankful that she happily accepted.



Dr. Kristin A. Bendikson

Dr. Bendikson, who is married and has one son, is also an Assistant Professor of Obstetrics and Gynecology in the Division of Reproductive Endocrinology and Infertility at the USC Keck School of Medicine. Her goal is to provide the highest quality care for her patients as she helps them fulfill their desire to give birth to a healthy baby. For more on Dr. Bendikson's education, areas of expertise, and particular interests, please visit our website at USCFertility.org.

As Dr. Bendikson has settled in at USC, Dr. Paulson has been busy with the publication of "Infertility For Dummies" (for which he served as technical advisor), his participation as a fertility expert in the entertaining and educational website Videojug.com ("Life Explained. On Film."), and the fulfillment of his responsibilities as a new board of directors member of both the American Fertility Association and the American Society of Reproductive Medicine. Plus, as more and more mothers around the globe push the birth-giving age limit, Dr. Paulson has secured his role as the "go-to doctor" to whom the international media turn when they need a comment on the record.

Meanwhile, Dr. Chung has spearheaded a promising new facet of **USC Fertility's** patient service, the Fertility Preservation Program, which will help ensure that women can continue to make additions to their own families following cancer treatment. Egg freezing for women with and without cancer is currently the primary focus of this exciting program.

As all of us at **USC Fertility**—physicians, staff, and patients alike—enter a new era, we urge you to please read more about all these exciting new developments within the pages of this newsletter. Fall has long symbolized harvest, abundance, and Thanksgiving. We are thankful for you, and for one another. Here's to a long-lasting and mutually rewarding alliance.

Warm Regards,

Richard J. Paulson, MD
 Karine Chung, MD
 Kristin A. Bendikson, MD



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Dr. Richard Paulson

Age Limits for Prospective Mothers: 2007 Update

At USC Fertility, the age limit for prospective mothers has been 55 years, since 1993, when our original publication appeared in *The Lancet*. Most clinics in the United States use a lower age limit, and have done so because

pregnancies after the age of 50 are thought to be rare to non-existent. Furthermore, the age of 50 is the approximate age of menopause.

Over the years, dozens of women in their 50s have become mothers as a result of egg donation at USC Fertility. The pregnancy outcomes have been good, and, with reasonable health screening prior to treatment, none of the mothers has experienced serious complications.

Recently, the news media reported the controversial story of a British woman who gave birth at the age of 59. What was remarkable was that no fertility intervention took place prior to her conception. She appears to be the oldest woman on record to conceive and deliver a child without medical assistance. (Several women in their 60s have had successful deliveries, but all used egg donation.)

This new report suggests that, as time goes along, better health is leading to greater longevity and longer reproductive potential. If a woman can conceive naturally at the age of 59, our age limit of 55 seems quite reasonable.

Women who deliver after their 55th birthday continue to be at considerably increased risk of obstetrical complications, at least in the setting of egg donation. The USC Fertility series published in *JAMA* in 2002 showed that 60% of women over 55 experienced pregnancy-associated high blood pressure, compared to only 25% for women in their early 50s.

At USC Fertility, we are optimistic that—as women take better care of themselves, eat healthier, and live longer—these numbers will improve. Eventually, it may not be unusual for women to be able to carry pregnancies into their late 50s or even early 60s.

SUCCESS RATES

We are proud to unveil our latest success rates, which are a testament to our continued dedication to expanding the possibilities for each and every one of our patients.

Woman's Age	2005	2006	2007
< 35	50%	34%	42%
35-39	41%	48%	35%
40-42	32%	18%	28%
Donor Egg (All Ages)	63%	47%	65%
Egg Freezing	56% (10/18)	No transfers during this time period	

Please call us for frozen embryo transfer success rates, which are approximately 2/3 those of fresh cycles.

BIRTHS!



Check out a few of the many recent additions to the USC Fertility Family:

ADRIAN JOAQUIN [1]

Born April 2006 to Edvin and Janette Cordon

LOGEMANN TRIPLETS [2]

Toni, Sydney and Max, born June 2007 to Thorpe and Shelly Logemann

MADISON LAUREN HOVE [3]

Born January 2006 to Jefferson and Mary Hove

RILEY EMERSON JONES [4]

Born February 2007 to Jeanette and Barry Jones

If you would like your newest arrival to be pictured in an upcoming issue of USC Fertility Success News, please send an email to Reception@USCFertility.org.



Dr. Karine Chung

In each issue of USC Fertility Success News, we will answer a patient's question related to a specific fertility-related topic. This issue's question pertains to preserving fertility, and is being answered by Dr. Karine Chung.

Q: Is it absolutely necessary that I quit smoking prior to undergoing IVF? Do I need to wait for a period of time after quitting before starting my cycle?

Dr. Chung: Cigarette smoking (in either male or female partners) has consistently been shown to increase the amount of time it takes to achieve pregnancy. It has also been associated with poor pregnancy outcomes such as miscarriage and complications later in pregnancy. These effects are probably due to the nicotine constricting your blood vessels, leading to decreased oxygen delivery to your reproductive organs. Breakdown products of nicotine are found in fluid surrounding eggs and in fluid surrounding sperm in both active and passive (second-hand) smokers. Therefore, it is highly recommended that you quit smoking prior to under-

going IVF. The optimal time to start your cycle would be when your body is no longer dependent on nicotine since even nicotine in the form of gums or patches might be harmful.

Certain other lifestyle choices and environmental factors have been shown to influence fertility. Prior to and during fertility treatment, it is important to focus on maintaining a healthy lifestyle. We recommend the following:

- Avoid cigarette smoking (male and female partners)
- Limit alcohol consumption to 4 or fewer drinks per week
- Limit caffeine intake to fewer than 2 cups a day
- Avoid use of marijuana or any other recreational drugs
- Avoid direct exposure to perchlorethylene (dry cleaning industry), toluene (printing business), ethylene oxide, herbicides, fungicides, and pesticides

If you would like to submit a question for an upcoming issue of USC Fertility Success News, please send an email to Doctor@USCFertility.org.

FERTILITY FOCUS

USC's New Fertility Preservation Program

More than 600,000 women are diagnosed with cancer each year in the US. Unfortunately, the most successful cancer treatment strategies often cause infertility and premature menopause, thus rendering many female cancer survivors incapable of having children in the future. Since the potential for infertility is a great source of stress for female cancer survivors and is an extremely important factor in their quality of life after cancer, we have introduced the Fertility Preservation Program at [USC Fertility](#) to address this critical need.

Program Mission

To increase awareness of, accessibility to, and availability of comprehensive fertility preservation and reproductive options for female cancer patients.

Before Cancer Therapy

All women are born with a limited number of eggs. Over time, there is a natural decline in the number of remaining eggs until a woman reaches menopause. It is well known that cancer treatment can quickly and dramatically reduce a woman's supply of eggs, leading to premature menopause in 15-89% of patients after chemotherapy. Because it is difficult to predict whether a woman will be fertile after cancer therapy, it is important to consider fertility preservation options before starting treatment.

Options:

- In vitro fertilization (IVF) and embryo freezing
- Egg freezing
- Ovarian tissue freezing and in vitro maturation (IVM)
- Fertility-sparing surgery

Testing Fertility After Cancer Therapy

While many women will resume regular menstrual periods after treatment, this does not necessarily indicate that they are fertile. The most reliable way to assess fertility after cancer therapy is an ultrasound of the ovaries and measurement of hormone levels in the blood.

Options:

- Fertility treatment and assisted reproduction
- Egg donation
- Gestational surrogacy

Safety of Pregnancy After Cancer

Thus far, research on the safety of pregnancy after cancer is reassuring. Research suggests that pregnancy after cancer treatment does not trigger recurrence. Also, the risk of birth defects in children born to cancer survivors is reported to be similar to that of the general public: approximately 2-3%.

For more information about USC Fertility's Fertility Preservation Program, please visit our website at USCFertilityPreservation.org or call us at 888-246-HOPE.

IN THE NEWS

National and international media regularly turn to USC Fertility physicians for expert information and commentary on reproductive health issues. And throughout the year, we make news of our own! A complete list of press releases, interviews, and media coverage is available in our web site "Press Room" at USCfertility.org. Highlights include:

July 15, 2007: *The New York Times*

Dr. Paulson is the only physician interviewed for a NYT Magazine cover story on the social and emotional issues surrounding egg donation.

June 11, 2007: *The Los Angeles Times*

Dr. Paulson is interviewed about controversial home fertility monitor Fertell.

May 2007: *Videojug.com*

Dr. Paulson answers questions about fertility on camera in dozens of individual clips for the new web site Videojug.com, whose tag line is "Life Explained. On Film." Videojug.com went live in September, and these clips will be available soon on USCfertility.org.

May 2007: *The New York Daily News, ABC News, The Toronto Star, and MSNBC*

After Frieda Birnbaum, of Bergen County, N.J., gives birth to twins at age 60, Dr. Paulson is interviewed on the controversial topic of older mothers on the outlets above, among many others.

April 2007: "Infertility For Dummies"

The publishing world is abuzz with the release of this eagerly anticipated book from Wiley Publishing, makers of the "Dummies" brand. Dr. Paulson served as the technical advisor for the tome, which was co-written by Sharon Perkins, RN, and Jackie Meyers-Thompson.

March 9, 2007: "Good Morning America"

Dr. Paulson and former USC Fertility fellow Dr. Anne Z. Steiner are interviewed on the popular morning show about their study evaluating parenting in women who conceive after the age of 50, which is believed to be the first examination of this kind.

February 2007: "Nightline"

Dr. Paulson is interviewed on the late-night show about the older women parenting study.

January 16, 2007: *The American Fertility Association*

Dr. Paulson is appointed to the AFA's board of directors.

NEW ON THE WEB

In the coming weeks, look to USCfertility.org for a link to Dr. Paulson's Videojug.com as well as a link to Dr. Paulson's podcasts in support of "Infertility For Dummies."

UPCOMING ARTICLES & INTERVIEWS

Dr. Paulson and the USC Fertility staff are to be featured on an upcoming segment of comic Chelsea Handler's popular E! Entertainment Television program "Chelsea Lately." (Rumor has it Nurse Practitioner Gina McConnell stole the show!)

EVENTS

November 8, 2007

USC Fertility attends RESOLVE's "Night of Hope" at California State University Long Beach's Earl Burns Miller Japanese Garden. Dr. Paulson has been nominated for the "Friend of RESOLVE Award," which recognizes an individual who has provided superior information and/or advocacy on behalf of the infertility community.

October 27, 2007

Dr. Paulson presents the keynote address, "Advances in IVF: An Historical Perspective," at "Family Building Options," RESOLVE's 16th Annual Fall Fertility & Adoption Symposium in Los Angeles. Also at the conference, Dr. Chung presents "Aging & Reproduction" and Dr. Bendikson hosts a round table focused on "The approach to the poor responder: the right stimulation protocol for you."

October 13, 2007

Dr. Paulson attends the American Society of Reproductive Medicine's annual meeting in Washington, DC, at which he officially accepts the prestigious invitation to join the ASRM's board of directors.

At the same event, Dr. Bendikson presents research on the correlation between cytokine levels in endometrial co-culture with pregnancy levels after in vitro fertilization.

May 17, 2007

Dr. Paulson presents on egg freezing at the Seattle Tacoma Area Reproductive Society Meeting in Seattle, Washington.

May 10, 2007

Dr. Chung presents "Options for Fertility in Female Chemotherapy Patients: The Current Status" at the Weekly Tumor Board, Desert Regional Medical Center, Palm Springs, California.

April 13, 2007

Dr. Chung and Dr. Paulson unveil their plans for USC Fertility's new Fertility Preservation Program at Grand Rounds, USC/Norris Comprehensive Cancer Center. See full story, page 3. Further presentations are made there on June 26, and at Grand Rounds, Department of Obstetrics and Gynecology, Women's and Children's Hospital, Keck School of Medicine of the University of Southern California on August 24.

March 14, 2007

Dr. Paulson speaks on the topic of older mothers at the annual meeting of the Association of Health Care Journalists in Los Angeles.