

## Can Herbal Remedies Lower Fertility?

By Judith Turiel, Ph.D.

"An alternative medicine study of herbal effects on the penetration of zona-free hamster oocytes and the integrity of sperm deoxyribonucleic acid,"

Ondrizek, RR et al, *Fertility and Sterility*, Vol. 71, pp. 517-522, 1999.

**CONCEIVING** a pregnancy is always a matter of chance. The likelihood of success for a particular woman and man during each menstrual cycle falls somewhere along a fertility continuum. Relatively few couples are completely infertile (around 5% of couples trying, according to some estimates), having no chance of a pregnancy without treatment. Everyone else ranges between the most severely *sub-fertile* couples to those with higher than average fertility, seeming to conceive at the drop of a hat (or other garments!).

People who are having trouble conceiving, or suspect they might, need to do what they can to maximize their chances at each attempt, whether that attempt involves a fertility treatment or

not. They may already avoid smoking or ingesting excessive amounts of caffeine, and may try to avoid potentially harmful occupational or environmental exposures. Some men might even avoid wearing jockey shorts, just in case.

Now there may be a different kind of exposure that could lessen chances of conception, one we might not think to consider—herbal therapies a woman or man is taking as an "alternative" treatment for various health conditions, such as insomnia, depression, colds, flu, asthma. A recently published laboratory study tested four different herbs, to determine whether they have effects on egg or sperm that might lower fertilization rates. More specifically, two kinds of tests were performed using St. John's Wort, saw palmetto berries, ginkgo biloba and echinacea purpurea.

One of the tests is a standard fertility test measuring the rate at which sperm penetrate hamster eggs. For this study, researchers first incubated the hamster eggs in high and low concentrations of each herb. The second test measured similarly drenched sperm for damage to DNA, as determined by the rate of mutation in one selected gene. The results were as follows:

- High concentrations of St. John's Wort, echinacea and ginkgo had negative effects on eggs, lowering the rate of penetration by sperm.

- St. John's Wort and echin-

acea damaged sperm DNA, weakening the sperms' ability to survive. Only high concentrations of St. John's Wort resulted in mutation of the tested gene.

- Saw palmetto had no observed effect on eggs or sperm.

To thoroughly evaluate these results requires greater knowledge of laboratory techniques than most people (including this writer and probably most physicians) have. Nor can we determine how closely the amount of herbs used in this study relates to the dosage humans actually take. In addition, the hamster egg penetration test provides limited information—although many couples undergo this test as part of an infertility evaluation, fertility specialists disagree on its usefulness for predicting whether a man's sperm can penetrate and fertilize *human* (i.e., his partner's) eggs. Therefore, this report's implications for people trying to conceive remains uncertain.

However, the findings on herbal effects do suggest an important general take-home message, one heard more frequently now that more people are trying alternative therapies—substances that are "natural" or "herbal", as opposed to manufactured chemicals (including medications), are not necessarily harmless, free of unwanted side effects.

When trying for a successful pregnancy, DES daughters and sons may be very careful about exposures to medications and

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## Largest DES Research Project Ever

THE U.S. Senate Appropriations Committee, in its report to Congress on the proposed budget for the National Cancer Institute for fiscal 2000 (Oct. 1999-Sept. 2000), described some of the work to be done.

"Beginning in 1994, over 6,900 mothers, 6,500 daughters and 3,600 sons received questionnaires. The first phase of data collection is complete, and the data are being analyzed.... The follow-up of DES exposed mothers is aimed at assessing whether these women are at increased risk of cancers other than breast, for which their risk is about 30% increased. It is important for DES-exposed daughters to continue regular screening for cervical and vaginal abnormalities since some doctors are concerned about the risk of clear-cell cancer during their menopausal years. NCI is also examining DES granddaughters since there is some concern on the part of the exposed population regarding the third generation of DES-exposed mothers. So far, all examinations of this group have been normal. A recent study published in the *New England Journal of Medicine* found no overall increased risk of infertility among DES-exposed men, although there were increased frequencies of some minor genital abnormalities....

Other aspects of DES under investigation are the effects of DES on fertility and pregnancy outcome, and the effects on mothers who received the drugs during pregnancy."

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# Notes from Nora

## Don't Miss DES Action's Fall Symposium!!

DES Action's daylong 1999 Symposium will be held on October 16 in Plainview, NY. This year's gathering will feature expert speakers in the field of DES research and menopause, as well as interactive workshops and opportunities to meet other DES mothers, daughters and sons. The keynote speakers are:

**Retha Newbold, Ph.D.**, National Institute of Environmental Health Sciences, has been studying DES effects in mice for over 20 years and is one of the leading experts in the field of DES research. She is the lead author of the report "Increased Tumors but Uncompromised Fertility in Female Descendants of Mice Exposed Developmentally to DES," which described a 'third generation' effect in mice exposed to DES. *Dr. Newbold will describe the results of her research and the implications for human health.*

**Phyllis Mansfield, Ph.D.**, is professor of Women's Studies

and Health Education at Pennsylvania State University and Director of the Tremin Trust Research Program on Women's Health, a longitudinal, intergenerational study of women's health and menstruation that has been going on since 1934. She is also co-director of the Midlife Women's Health Study, a longitudinal study begun in 1990 that has followed several hundred women as they move through the menopausal transition. Dr. Mansfield is also an investigator on a five-year NIH-funded study of the menopausal transition. *Dr. Mansfield will speak on the menopausal transition.*

A report on the ongoing National Institutes of Health Study, Long-Term Continuation of Follow-up of DES-exposed. Speaker to be announced.

In addition to the speakers, the day will include a series of workshops that will be repeated (i.e. everyone will be able to attend two different workshops).

Workshop topics are:

1. Infertility/Reproductive Technologies and DES
2. Menopause: Hormones, alternatives, and you
3. Legal issues: what does it mean to pursue a DES lawsuit?
4. General medical concerns (including auto-immune effects and DES sons).

*The Symposium will be held on Saturday, October 16, 1999 at the Marriott Residence Inn in Plainview, New York. The cost is \$85, which includes all registration materials and lunch. There are a limited number of rooms set aside at the Marriott. Please let us know if you are interested in staying overnight at the hotel on Friday, October 15 and/or Saturday, October 16.*

If you would like to attend, please contact Nora Cody by telephone or email any time:  
1-800-DES-9288 or  
desact@mail.well.com  
for more information. ■

## My Year of Meats wins book award Now available in paperback!

Ruth Ozeki's novel *My Year of Meats* (see review in Spring 1998 *Voice*), a very readable and engaging book that deals with DES, hormones in beef, infertility, and cross-cultural experiences (among other things) has won a book award. *My Year of Meats* was chosen from among 239 books to win the Kiriya Pacific Rim Book Prize, established to promote understanding among Pacific Rim peoples and nations. In awarding the prize a book prize judge described Ozeki's book as "a novel that zings from New York to Tokyo. Fast-moving prose that captures issues and sounds of today's Pacific Rim." We highly recommend this book and are happy to report it is now available in a paperback edition.



# Safe Milk? Ask the FDA

DES Action, along with millions of consumers, has long been concerned about the addition of recombinant bovine growth hormone (rBGH) to cow feed. We oppose the addition of this hormone on the grounds that there has been no long-term study that would establish the safety of this hormone for human consumption (via cows milk). We are particularly concerned about the potential effects on children, who generally consume much more cow's milk than adults, and are more vulnerable to hormonal influences.

In 1993, the Food and Drug Administration (FDA) approved recombinant bovine growth hormone for use in cows and ruled that dairies and supermarkets are not required to label milk that may contain rBGH. Some dairies voluntarily label their milk "rBGH-free" and organic dairies do not use rBGH.

Recent research has again raised concerns about the health effects of rBGH consumption. Canadian scientists reviewed unpublished data from the rat studies that were commissioned by Monsanto (the manufacturer of rBGH) - studies submitted to the FDA and used to establish the safety of rBGH. They found that 20-30 percent of the rats that ingested high doses of the hormone developed antibodies to it, a sign that it was active in their bloodstreams. And some of the male rats developed cysts on their thyroids and abnormalities in their prostates.

The National Women's Health Network newsletter

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**"We oppose the addition of this (bovine growth) hormone on the grounds that there has been no long-term study that would establish the safety of this hormone for human consumption."**

reported in December that

*"In 1994, we alerted our readers to the many unanswered questions and potential risks resulting from milk containing rBGH.... A major then-unanswered question was the potential effect of raised levels of insulin-like growth factor 1 (IGF-1) which is found in high levels in milk from cows treated with rBGH. IGF-1 is normally found in the human body, where it plays a necessary role, but increased levels can cause numerous health problems...we called attention to the dangers of increased IGH-1 levels, such as the fact that it had been found to stimulate cancer growth in test tubes. In 1996, we reported on research in rats which found that IGF-1 appeared to be protected by a protein in cow's milk, leading to the possibility that IGF-1 could survive human digestion and cause unknown health problems.*

*New information has now confirmed the risk to human health by IGF-1 exposure. Increased levels*

*of IGF-1 have been linked to a seven-fold increase in the risk of breast cancer among pre-menopausal women under the age of 50, reports the August/September 1998 Breast Cancer Action Newsletter. The article describes a May 9, 1998 Lancet study in which the IGF-1 related increase in breast cancer risk appeared to possibly be stronger than many breast cancer risk factors (family history was still stronger). It may also increase the risk of colon and prostate cancer."*

Since this article appeared, the New York Times reported that in December, 21 dairy farm associations and consumer groups in the United States said they would file suit against the FDA for its failure to require more studies of the safety of rBGH. And, early in January this year, the Canadian government said it would not approve rGBH. Thus, the United

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**"We are particularly concerned about the potential effects on children, who generally consume much more cow's milk than adults, and are more vulnerable to hormonal influences."**

States is the only major nation allowing its use.

Our concern is also with what has happened to the FDA - once regarded as a protector of our health. Dr. Sidney Wolfe and Dr. Peter Lurie of the Health Re-

search Group released a study in December on "Federal Medical Officers Report Lower Standards Permit Dangerous Drug Approvals." They found that 19 medical officers of the FDA listed 27 new drugs that they reviewed in the past three years and thought should not be approved but were approved anyway. Three prescription drugs approved in 1996 and 1997 were later banned as too dangerous: Redux, Posicor, and Duract. Significantly, information available before approval had raised safety concerns, and the new drugs did not offer any important advance over drugs already on the market.

The study quotes the disturbing words of one medical officer who said, "In the last two years, I recommended that two drugs

not be approved. They were both approved without consulting me. This never happened before. In one case, the drug did not meet the standards set up by the division, so they nullified the standards."

In another case, a medical officer wrote that a high-ranking FDA official had said, "Everything is approvable. We can use the label creatively to lower the problems." ■

#### DES Action website and e-mail

And don't forget that  
DES Action  
has a website at  
<http://www.desaction.org>,  
and our e-mail address is  
[desact@mail.well.com](mailto:desact@mail.well.com).  
Hope to see you on the  
internet!

#### MENOPAUSE: A SERIES OF ARTICLES FROM THE DES ACTION VOICE

We have a new 51-page booklet. The articles and reviews refer to menopause in general; no research has been reported on menopause for DES daughters. The booklet discusses hormone replacement treatment, natural remedies, alternative treatments, cancer and estrogen, and the menopausal experience. You can order this booklet by sending us a check for \$8.00

## We Need Your Help!

Please photocopy and mail or fax this in to us:

- ☐ If you are a DES daughter and
  - ☐ See a doctor for your DES exposure who is knowledgeable and who you can recommend, or
- ☐ If you are a DES son with a recommendation for a urologist.

\_\_\_\_\_  
Name of doctor

\_\_\_\_\_  
Address of doctor

\_\_\_\_\_  
Telephone of doctor

\_\_\_\_\_  
Specialty (Ob/gyn, endocrinologist, urologist, etc.)

Mail: 1615 Broadway, #510, Oakland, CA 94612 Fax: 1-510-465-4815

# National Research Conference to be held July 19-20, 1999

ALL DES Action members are invited to attend the National DES Research Conference, July 19-20, 1999, in Bethesda, MD.

This conference is being sponsored by the National Institutes of Health. The meeting will bring together scientists, physicians, and consumers to discuss the current state and future priorities for DES research. Speakers will review four major areas of research: epidemiology (the study of large-scale disease patterns, for example surveys of DES-exposed groups that show increases in pregnancy problems), basic laboratory research, clinical research, and education and outreach. There will be breakout groups with discussion to determine future research recommendations. It is open to the public and registration is free.

The four speakers are:

Arthur Herbst, M.D., author of the 1971 report linking DES and clear cell adenocarcinoma and current Director of the Clear Cell Cancer Registry. Dr. Herbst will review the progress made in the area of clinical research.

In the area of epidemiology, Robert Hoover, M.D. will present an overview. Dr. Hoover is the National Cancer Institute Director of the Long-Range Continuation of Follow-up of the DES-exposed Study.

Presenting data on basic laboratory research will be Retha Newbold, author of the recent report on third generation DES effects in mice and National Institute of Environmental Health Sciences researcher.

Debbie Wingard, Ph.D., will speak on education and outreach-

efforts to reach the public and health care providers with information about DES. Dr. Wingard is an epidemiologist and a professor at the University of California, San Diego who has taught about DES for many years. Dr. Wingard is also a DES daughter and a member of DES Action.

In addition to hearing the four presentations, attendees will have

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**"The meeting will bring together scientists, physicians, and consumers to discuss the current state and future priorities for DES research."**

the opportunity to participate in breakout group sessions that will discuss priorities for future DES research in each of the four areas. Group leaders will then present the recommendations of these breakout sessions on the second day of the conference.

There will be a reception on Monday evening following the first day of the conference, and Judith Helfand's film about DES A Healthy Baby Girl will be shown. In addition, there will be poster presentations about DES research in the evening and at several breaks during the day.

DES Action will make arrangements for our members to get together on Sunday evening, July 18 and if possible at another point during the meeting.

The conference is free, but registration is required and participants will be responsible for their own travel and lodging arrangements and costs. If you are inter-

ested in attending, please contact Nora Cody as soon as possible so that you can receive further details. Once you provide us with your name and address, we will forward it to the National Cancer Institute and they will send you registration and logistical information

Contact Nora Cody by e-mail at [desact@mail.well.com](mailto:desact@mail.well.com), write to DES Action at 1615 Broadway, Suite 510, Oakland, CA 94612 or call 1-800-DES-9288. ■

## Support from the American Medical Association

THE Medical Students Section of the AMA introduced a resolution on DES that was passed by the entire AMA House of Delegates at their national meeting in December. Support for an informational campaign was covered in their Resolution 501:

**Resolved,** That the AMA continues to encourage education on the consequences of diethylstilbestrol exposure so that medical students, physicians and other health care professionals receive satisfactory knowledge of the signs and symptoms of DES exposure in both the mother and her children; and be it further

**Resolved,** That the AMA encourage research efforts on DES exposure and the future health of those affected.

We owe our thanks to Janine Keever of the East Carolina University School of Medicine, who submitted this resolution as a spokesperson for the students.

# Over the Counter

By Charles Inlander

Reprinted from *This Won't Hurt (and other lies my doctor tells me)*

HAVE you ever wondered why birth control pills are still available only by prescription? After all, most brands have been on the market for more than 35 years. More women—about a billion—use the Pill than use any other prescription medication. So why can't it be bought over the counter?

Here's another question: How come so many drugs available over the counter in foreign countries are still sold only by prescription in the United States?

If this were a quiz, your answer to both questions would be "safety." And in theory, you'd be right. But there are many products sold only by prescription that have been shown to be as safe as similar products sold over the counter. So what's going on?

We all know drugs—even

legal ones—can be dangerous. Because of that, we have an elaborate system of federal control over the entire pharmaceutical industry. No product—prescription or over the counter—can come on the market unless it meets certain standards. For the most part, the system works pretty well.

In the 1800s, controls didn't exist. Anybody could make anything, label it a medicine, and sell it to an unsuspecting public. But products became more sophisticated. So did the clamor for better consumer protection. Soon after the turn of the century, the forerunner to our current U.S. Food and Drug Administration was created.

Since then, no single aspect of the health care system has had more of an impact on consumer health and longevity than pharmaceutical products. From sulfa drugs to antibiotics, we live longer and better because of the ever-growing list of new and important medications. And the

twenty-first century looks even brighter.

But as we get closer to the year 2000, we must also recognize that we have become better medical consumers. We are more knowledgeable about drugs and medical services than ever. Studies show that consumers use over the counter products responsibly and effectively, meaning we know how to use many medications without ever consulting a physician.

The government has begun to recognize this by making many more formerly prescription-only drugs available over the counter. Many of the antihistamines and heartburn medications on drugstore shelves were behind the pharmacy counter just a few years ago. In February 1996, the FDA approved the hair-restoring product Rogaine for over-the-counter status. But none of these products got there without a fight. And that brings me back to the question of birth control pills.

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other chemicals.

At the same time, given their experience, the DES exposed may also be more inclined than other people to seek alternatives to western medicine, including herbal remedies, for treating various health problems. At the least, this study suggests that some herbs, like other substances, may interfere with the fertilization process, thereby lowering chances for pregnancy.

Although more research is clearly needed to evaluate more thoroughly the impact of herbal

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**"this study suggests that some herbs, like other substances, may interfere with the fertilization process, thereby lowering chances for pregnancy."**

therapies on fertility (or on any other aspect of health, for that matter), this report is better than nothing. DES daughters and sons who wish to conceive a pregnancy—women and men who may be experiencing fertility problems—want to give them-

selves the best odds for conception. Considering the results of these tests on four herbs, individuals may want to err on the side of caution by considering *all* the possible suspects that, along with smoking and other exposures, could lower their fertility. As with any medical treatment, the potential benefits of a "natural" or herbal treatment for any health condition (including for infertility) must be weighted against the potential risks—risks which may include lowered fertility. ■



OVER THE COUNTER from page 7...

More studies have been done on birth control pills than on any other pharmaceutical product in history. The conclusion: they're safe and effective. So why require a prescription?

Doctors!

Physicians have lobbied against changing the Pill's status because they say if it's available over the counter, women will stop coming in for gynecological examinations. Yet studies show that doctors write most birth control prescriptions when patients aren't present. It's not the women they're worried about as much as making sure that they—as doctors—are indispensable.

And that's the way it is with many products that remain

behind the counter. For example, in 1995 the Food and Drug Administration refused to allow the antiviral drug acyclovir, extremely effective in treating herpes, to be sold without a prescription. Even though medical studies show acyclovir is quite safe and a panel of experts recommended it for over-the-counter status, physicians opposed this. And today, it is still a prescription-only medication. So now fewer people get the drug than might, and the herpes epidemic is growing.

It is time to change the system so that prescription products that have been safely on the market for many years may be granted over-the-counter status. While it is essential that we be protected from toxic and

dangerous products, it is also important to remember that medications are made to heal, not to protect anyone's medical turf.

## DES newsgroup- Check it out!

There is a DES newsgroup — check to see if your server carries it. It is called `alt.support.des` and it is a newsgroup for DES exposed daughters, sons, and moms. The purpose of this group is to exchange information, provide support, and post DES related announcements.

T W E N T Y - F I R S T

# DES ACTION

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