Sperm Count Decline Confirmed

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Expert: Sperm Counts Falling Around the World

By Maggie Fox, Health and Science Correspondent

WASHINGTON (Reuters) - Modern living is hitting men right where it hurts the most, with sperm counts falling more quickly than anyone thought, U.S. researchers said Monday.

Experts who set out to dispel fears of falling sperm counts found they were even lower than had been reported. "I think this study will change the debate about sperm decline from 'if' to 'why'," said Shanna Swan, chief of the reproductive epidemiology section at the California Department of Health Services, who led the study.

The debate has been bubbling since 1992, when Niels Skakkebaek, Elisabeth Carlsen and colleagues at Copenhagen University reported sperm counts were falling around the world, based on an analysis of 61 different studies. Their announcement caused a flurry of debate, and studies published since have shown conflicting results. British research found that men born in the 1970s had 25 percent fewer sperm than those born in the 1950s, while Harry Fisch of New York's Columbia-Presbyterian Medical Center found men there had high sperm counts, with no evidence of a decline.

Swan's group re-analyzed the 61 studies. "Overall, in Europe and the United States there is a strong and significant decline," she told Reuters. There could be regional variations, which would account for the New York findings and similar findings in Seattle and Finland, she added in an interview.

The National Institutes of Health agreed. "Their analysis of data collected from 1938 to 1990 indicates that sperm densities in the United States have exhibited an average annual decrease of 1.5 million sperm per milliliter of collected sample, or about 1.5 percent per year," the NIH said in a statement. "Those in European countries have declined at about twice that rate (3.1 percent per year)."

Sperm counts seemed to be going up slightly in developing countries, but Swan said the data from these areas was sketchy and did not go back as far as
the U.S. and European results. Swan, whose findings will be published in the
journal of the National Institute of Environmental Health Services, one of the
NIH agencies, said she approached the task expecting to disprove the theory.
"When I first read Carlsen I was at first, frankly, suspicious because of its
simplicity," she said.

But after careful analysis, she changed her mind. What is the cause? "Once
we rule out differences such as smoking, temperature, age and ethnicity, what
we will have left are environmental factors," Swan said. She, and many other
experts, blame persistent organic pollutants (POPs), which range from
pesticides such as DDT to industrial chemicals like PCBs. All have been
shown to act like hormones such as estrogens, which can either bring out
feminine characteristics or work to counteract male hormones.

Swan is part of a National Academy of Sciences committee writing a report
on such chemicals. The Academy has not reviewed her sperm research. Swan
said fertility was not the big issue, as babies were still being born. "However,
sperm count is a marker, a red flag ... for testicular cancer." she said.

In November 1996 the U.S. Congress passed legislation requiring the
Environmental Protections Agency (EPA) to develop ways to test substances
to see if they disrupt human or animal hormones. In May, the European
Environment Agency, European Commission, World Health Organization and
other organizations agreed there was an apparent decline in sperm count in
some countries, and evidence that rates of testicular cancer were increasing.

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is granted to reprint the textual portions of this web and the Earth Guardian insignia, with attribution, in
hardcopy form only.
Many articles have appeared in the medical literature about new treatments for cancer, heart disease, allergies, asthma, and dozens of other afflictions. But little is written about causes and prevention. It is our belief that responsibility for the health crisis we are facing today lies with U.S. (and, following the U.S. example, worldwide) business practices.

During the last 50 years, many billions of pounds of toxic and radioactive chemicals have been released into the environment. There is not a single living thing on earth that does not have residues of these poisons intruding into its cells. Making the earth's inhabitants healthy again will require that we turn away from the use of toxic and radioactive materials, find safe alternatives, and eliminate waste from our industrial and commercial processes.

But for now, we need to find ways to protect ourselves and our families from the intrusion, as best we can. There are ways that we can live fairly healthy lives while we clean up the earth for future generations.

First and foremost, we must eat further down on the food chain. The bottom of the food chain is grains, beans, vegetables, and fruit. At the very top of the food chain are the meat-eating animals such as birds of prey and large fish. Toxic chemicals accumulate and concentrate in the fat of animals and fish in hundreds, thousands, or even millions of times greater concentration than in (or on) the food eaten by these animals.

So if we were to eat beans, grain, fruit, and vegetables, the amount of toxic chemicals that would accumulate in our fat cells over a lifetime would be thousands or millions of times less than if we eat meat, milk and fish. Today, because of dioxin contamination in meat, fish, and dairy products, this is imperative for healthy living. It is best to avoid foods that have bio-accumulated this super-toxin. Beef, pork, fish (especially freshwater) and full-fat dairy products are severely contaminated with dioxin, and should be considered toxic! Chicken, other poultry, and eggs are less contaminated, but still have significant amounts. See the dioxin page for other tips to avoid this super-toxic chemical and similar organochlorine chemicals.
The foods at the bottom of the food chain have no significant dioxin contamination. It is quite possible to obtain all the protein you need - about 70 grams of complete protein per day - by eating vegetarian foods and meat substitutes made of grain and beans. The demand for these vegetarian foods has become so great that many of them are quite tasty; no more do you need to figure out what to do with plain tofu to make it palatable.

Soy drinks such as Edensoy and Westsoy are quite decent, tasty substitutes for milk. If you like to cook, there are hundreds of excellent vegetarian and vegan (non-dairy vegetarian) cookbooks. Classic Mexican dishes such as tacos and burritos with no meat or cheese, and Chinese and Japanese tofu dishes served with rice are examples of excellent-tasting high-protein vegetarian meals.

Second, to counteract the stresses placed on our bodies by chemical intrusion (as well as the emotional stress of living in our fast-paced society), it is a good idea to take high doses of certain vitamin supplements. Below is the vitamin regimen Jon Campbell has been following for years with no adverse side effects.

*Check with your doctor before using this or any other high-dosage regimen to make sure it does not interfere with other medications you might be taking.* In addition, you must drink at least 1/2 gallon, and preferably one gallon (four quarts or 16 full glasses) of fluids each day. This amount of fluid intake is now recommended by many doctors for healthy kidney function.

- 2-10 grams (2000-10000 milligrams) Vitamin C, spread out during the day, taken with food or soy drink to avoid stomach upset. Most people are aghast when I make this recommendation, but it is well-documented in the book *Vitamin C, The Master Nutrient* by Goodman and Passwater, and in many studies. Most animals produce their own Vitamin C at these levels, but humans and primates must get them externally. If you are ill, you can take far more (20 or more grams per day) to help your body fight the illness.

- 1 gram (1000 milligram) calcium with magnesium, spread out during the day. This is the U.S.R.D.A.! Our nerve cells use up calcium, and if we don't eat it, it is taken from bones and teeth.

- 800-1600 IU Vitamin E (start at 800, build up to 1600. *If you have high blood pressure, check with your physician!*).

- 25,000-50,000 IU Beta Carotene (Do not use oil-based Vitamin A!).

- Ginkgo, for increased blood circulation in nerve cells. Take as directed on the bottle.

- Pantothenic Acid (Vitamin B-5) and Lecithin. Together, they enhance the production of acetylcholine, for enhanced brain function. Take as directed on the bottle.

- Bilberry extract, to enhance eye health. Take as directed on the bottle.
- Zinc: 15-20mg if you do not have night vision problems or prostate enlargement, 50mg if you have either problem. (Take at a different time than Vitamin E, as they destroy each other).
- Vitamin B-Complex supplement, to make up for the fact that we don't eat enough green leafy vegetables in our diet.
- Aloe Juice - a few ounces of this somewhat odd-tasting liquid each day apparently helps heal internal inflammations you might have in your gastrointestinal tract. Given the number of people with severe dyspepsia, this may be a viable alternative to some of the powerful anti-acid medications people currently take, which can have unwanted side effects such as impotence! (There is also anecdotal evidence that aloe has a positive effect on arthritis, through unknown mechanisms.) *Only use pure aloe juice that is prepared to be taken internally.* It is sold by the quart or gallon in health food stores. *Pregnant women should not ingest aloe.*

Third, jog or fast-walk at least 1 mile each day. If you are unused to daily exercise, start with a shorter walk at a slower pace, and build up to a mile.

Fourth, avoid contact with toxic materials. If you must handle them, do so with heavy rubber gloves, protective clothing, and an organic chemical mask.

Finally, use relaxation techniques during the workday, such as meditation, at least once per day for five minutes. I suggest using the imagery of a non-toxic environment. In addition to helping your body to heal itself from toxic assaults, this technique will train your body and mind to avoid situations in which you might inadvertently expose yourself to toxic substances - it increases your awareness.
What is Toxic Alert?

Toxic Alert is a public service of CQS, a consulting organization in Acton, MA. Our mission is to make complex technical information about health and toxics in our environment so that it is accessible and understandable by most people, and to provide alternatives and health information so that people can protect themselves, their families, and their communities.

Along with articles by world-class journalists such as Paul Brodeur, Bill Ravanesi, Larry Shook, and Tim Connor, much of the information is presented in the form of short informational documents in simple language. They have been designed to be usable directly, with little modification, for community public information and organizing. (See below for more information on Toxic Alert and CQS).

This site also provides a link to community organizations that are working to improve the environment, and to statewide and national organizations that can provide information and help.

Toxic Alert Pages - General Information

- Environmental news and archives
- Biotechnology and Genetic Engineering - What is it? Why is it a threat?
- Community Health and Organizing
- Dioxin and PCBs - they are in our food, air, and water
- Hazardous Waste
- Media
- Nuclear Matters
- Resources and Survival Guides
- Pesticides
- Solid Waste (aka Trash) Landfills, Incineration and Recycling
The media tells us that the environment is getting better, but there is clear evidence that it is not. Literally hundreds of billions of pounds of toxic chemicals are released into the environment each year. Cancer has reached epidemic proportions, especially breast cancer for women and prostate cancer for men. Afflictions such as endometriosis, Attention Deficit Disorder, and asthma, relatively rare or unknown at the beginning of the century, are now commonplace. The sperm count among men in the industrialized countries
has been cut in half in the last 30 years. The EPA lists 40,000 Superfund contamination sites nationwide. Our food is routinely sprayed with pesticides whose safety is in question.

Dioxin, a super-toxic by-product of the incineration of PVC plastic, and PCBs, used in transformer and compressor motor oils, are everywhere. These are hormone-disrupting chemicals: they interfere with the sensitive chemical messaging system in our bodies. They are known to cause cancer and the other afflictions noted above.

We need to do something. But people must understand what is happening around them before they can take on the polluters, the inertia of U.S. businesses, and the opposition of the chemical giants. There is a wealth of highly technical papers signaling the alarm and providing critical information about health and the environment, but little that can be understood by ordinary folks. Toxic Alert fills this gap. As mentioned above, the information at this site has been designed so that it is directly usable in public information campaigns. Organizations and individuals are invited to copy these documents and use them in their communities.

Note that for the moment, a few of the references are limited to New England. More states - and countries - will be added as time permits.