

More Evidence That Smoking Worsens Semen Quality



By Kathryn Doyle | May 02, 2016

(Reuters Health) - A new review using updated World Health Organization criteria for laboratory examination of semen confirms that smoking has bad effects on sperm.

In 2010, the WHO reduced the categories of rating sperm motility from four to two and introduced strict criteria for sperm shape and size. One study found that with the new criteria, 15 percent of patients with "abnormal" semen according to the 1999 WHO values were reclassified as "normal" under the 2010 values, the authors of the new study write.

"A clear cut study that proved beyond any doubt that smoking negatively affects semen quality was never published," said coauthor Ashok Agarwal of the American Center for Reproductive Medicine at the Cleveland Clinic.

"Therefore, the first goal of the current study was to conduct a systemic review and meta-analysis that will assess all the published good quality data to provide an answer whether cigarette smoking affects semen quality," Agarwal told Reuters Health by email.

Even using the most up-to-date definition of abnormal sperm from the WHO, the researchers found that smokers have lower sperm counts, poorer sperm motility, and more irregularly shaped sperm than nonsmokers.

Agarwal and colleagues reviewed 20 studies including almost 6,000 participants. Men exposed to cigarette smoke had notably fewer sperm per ejaculate, fewer mobile sperm and more irregularly shaped sperm, the researchers reported April 21 online in *European Urology*.

The extent to which male fertility is affected by smoking isn't clear yet, Agarwal told Reuters Health by email.

"However, accumulating data indicate that the ability of the sperm to fertilize and subsequently enable the development of a normal fetus is dependent on many other co-factors in addition to the basic semen parameters," like DNA fragmentation and genetic changes in the sperm, which cannot be diagnosed in a simple semen analysis, he said.

None of the studies in this review evaluated what happened to semen quality when a man quit smoking, he said.

"We can say clearly that smoking alters male fertility," he said. "Hence smoking cessation must be strongly advised to couples seeking fertility."

Lay people think of smoking as causing lung cancer, emphysema and heart disease, but likely do not link it to fertility, said Ajay K. Nangia of the urology department at the University of Kansas Hospital and Medical Center in Kansas City, Kansas, who was not part of the new review.

Chemicals in tar and nicotine enter the blood and travel down into semen and can affect sperm, Nangia told Reuters Health by phone.

Smoking can also cause erectile dysfunction in young men, he said.

"Even the risk of heart attack is less important than erectile dysfunction for some men," Nangia said.

Semen characteristics may improve after quitting smoking, but neither heart disease nor erectile dysfunction will go away, he said.

"If you don't have good erections, that's a component of fertility," he said.

"As caregivers, we always say that smoking is harmful in general and it negatively impacts fertility in particular," Agarwal said. "Smoking adversely impacts all bodily systems and it is well known serious hazard to health."

SOURCE: <http://bit.ly/1TAEQDE>

Eur Urol 2016.

Reuters Health Information © 2016

Cite this article: More Evidence That Smoking Worsens Semen Quality. *Medscape*. Apr 29, 2016.

This website uses cookies to deliver its services as described in our Cookie Policy. By using this website, you agree to the use of cookies.

close