

## Blood type may affect stroke risk, study finds

November 16 2011, By MARILYNN MARCHIONE, AP Chief Medical Writer

Your blood type might affect your risk for stroke. People with AB and women with B were a little more likely to suffer one than people with O blood - the most common type, a study found.

The research can't prove such a link. But it fits with other work tying A, B and AB to more risk of <u>blood clots</u> in the legs and heart attacks. Blood type O also has been tied to an increased risk of bleeding, which implies less chance of clots, the cause of most strokes.

"There's increasing evidence that blood type might influence risk of chronic disease," said one of the study leaders, Dr. JoAnn Manson, chief of <u>preventive medicine</u> at Harvard's Brigham and Women's Hospital.

"It's not at the level where we want to alarm people and we want to make that clear. But it's one more element of risk that people would want to know about," and it could give them one more reason to keep blood pressure and cholesterol in line, she said.

The study, led by Brigham's Dr. Lu Qi, was presented Wednesday at an <u>American Heart Association</u> conference. It involved 90,000 men and women in two observational health studies that have gone on for more than 20 years.

Looking at the 2,901 strokes that have occurred and taking into account other things that can cause them, such as <u>high blood pressure</u>, researchers found:



- -Men and women with AB had a 26 percent increased risk of <u>stroke</u> compared to those with type O.
- -Women but not men with B blood had a 15 percent greater risk compared to those with O.

What's the explanation?

Blood type depends on proteins on the surface of <u>red blood cells</u>. A pattern of <u>immune system responses</u> forms early in life based on them. Certain blood types may make red cells more likely to clump together and stick to the lining of blood vessels, setting the stage for a blood clot, Manson said.

"You can't change it, and we don't know if it's the blood type per se or other genes that track with it" that actually confers risk, said Dr. Larry Goldstein, director of Duke University's stroke center.

"There are other things that are more important" than blood type for stroke risk, such as smoking, drinking too much and exercising too little, he said.

About 45 percent of whites, 51 percent of blacks, 57 percent of Hispanics and 40 percent of Asians have blood type O, according to the American Red Cross. Such people are called "universal donors" because their blood can safely be used for transfusions to any other blood type.

AB <u>blood type</u> is the least common type, present in 4 percent of whites and blacks, 2 percent of Hispanics and 7 percent of Asians.

B is second least common overall, in 11 percent of whites, 19 percent of blacks, 10 percent of Hispanics and 25 percent of Asians.



A is in 40 percent of whites, 26 percent of blacks, 31 percent of Hispanics and 28 percent of Asians.

## **More information:**

Heart Association: <a href="http://www.americanheart.org">http://www.americanheart.org</a>

Blood types: <a href="http://www.redcrossblood.org/learn-about-blood/blood-">http://www.redcrossblood.org/learn-about-blood/blood-</a>

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