## Type A heart attacks studied

## Cholesterol type may be culprit

By DANIEL Q. HANEY AP science writer

Hard-driving, competition-loving Type A's may face a higher risk of heart attacks because their bodies make unusually small amounts of protective good cholesterol, according to a study released Tuesday.

Doctors have suspected since the 1950s that people with aggressive personalities are more likely than more laid-back folks to suffer heart attacks. But until now, there has been little good scientific evidence to explain why

The latest study suggests that low levels of high-density lipoprotein, or HDL, the so-called good cholesterol, can explain virtually all of the increased risk in Type

If later research confirms this link, it will provide more ammunition for those who believe stress reduction is good for the

"Type A's have substantially lower HDL. That seems to explain their greater risk of heart attacks," said Dr. JoAnn Manson of Brigham and Women's Hospital in Boston, who directed the study.

Like many other studies over the years, hers found that Type A's were about 50 percent more likely than easy-going Type B's to suffer heart attacks.

However, the theory that their aggressiveness is the key factor has come into question recently. Some experts believe that suppressed anger is the personality trait that really harms the heart.

Manson's study concludes that the traditional Type A characteristics, not just anger, are strongly associated with higher risk of heart attacks.

In her study, people were considered to be Type A if they:

Try to achieve many poorly de-

fined goals.

▶ Love competition.

Crave recognition and advancement.

Are always in a hurry.

▶ Have intense concentration and alertness.

Easily become angry.

Her study, presented at a meeting of the American Heart Association in New Orleans, found that Type A's HDL levels were about 10 points lower than Type B's. One point lowering in HDL is thought to increase the risk of heart attacks about 3 per-

The study "suggests that Type A personality is associated with lower HDL. But it doesn't prove cause and effect," said Dr. Michael Miller, director of preventive cardiology at the University of Maryland.

Dr. Charles Hennekens, a coauthor of the study, agreed, saying that more research will be needed to know whether low HDL actually causes the heart attacks seen in Type A's.
However, some believe the new

theory makes sense. They note that people who push themselves produce higher levels of stress hormones, such as adrenaline,

and this could lower HDL levels. Dr. Thomas Clarkson of Bowman Gray medical school has already shown this in animal studies. He found that monkeys under high stress had lower

"You could argue that measuring HDL is a more precise way to figure out if you are under stress," commented Dr. William Castelli, director of the Framingham Heart Study in suburban Boston. Manson's study was based on a comparison of 349 heart attack survivors and a randomly chosen comparison group of the same age and sex who lived in the same towns.

Cholesterol contains two major components - HDL and LDL, or low-density lipoprotein cholesterol. LDL raises the risk of heart attacks, while HDL lowers it.

The latest study is one of several in recent years to suggest that low levels of HDL may be the most powerful predictor of heart attack risk. Aerobic exercise and moderate alcohol consumption have been shown to raise HDL.