

27-1

Researchers link gene to early puberty in girls

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NEW ORLEANS — Scientists attempting to figure out why some girls go through puberty at unusually young ages have found a surprising culprit — a gene that speeds up the body's breakdown of the male sex hormone.

Many believe that the age of puberty — the time when girls develop breasts and other sexual characteristics — is creeping downward. The most widely held explanation for this is growing childhood obesity, along with rich diets and lack of physical activity.

Research released yesterday at a meeting of the American Association for Cancer Research suggests an interplay of hormones since the body's supply of testosterone, the male hormone, seems to be a key influence on the timing of puberty.

Dr. Fred F. Kadlubar and colleagues from the Food and Drug Administration's National Center for

Toxicological Research discovered the link in a study of 192 girls ages 9 and 10.

A study published four years ago found that about half of all black girls and 15 percent of whites begin to develop sexually by age 8. The average age of puberty is about 13 for whites and 12 for blacks.

Typically, girls begin breast development about a year before their first period. Kadlubar's team looked for a link between genes and this change in the group of girls.

To their surprise, the researchers found a strong link when they tested the girls for a gene that controls the breakdown of testosterone.

They looked for a particular variation, called CYP1B1, in a gene that produces a liver enzyme. They found that 90 percent of the girls with two copies of this genetic variation already had begun breast development by age 9½, compared with 56 percent of those with one copy and 40 percent with no copies.