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Q & A; Perils of Plaque

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Q. Is there any correlation between the plaque that forms on teeth and plaque in the arteries?

A. Quite possibly. Though scientists have not drawn a straight line between the two kinds of plaque, there is a strong correlation between dental disease related to plaque and the incidence of hardening of the arteries, heart disease and stroke.

The association with heart disease is particularly strong in people over 50.

Dental plaque is a bacterial film on the teeth. The most common kind of bacteria found in dental plaque, causing gingivitis and the more severe gum disease called periodontitis, can also escape into the bloodstream.

There, the substances emitted by the bacteria may be implicated in a buildup of arterial deposits or in blood clots, recent research suggests.

Meanwhile, people with very severe gum disease, especially those who have lost some teeth, have been found in some studies to have notably higher rates of stroke caused by plaque in the arteries that serve the brain.

While a link in humans has not been proved, studies in animals have shown that periodontal disease can induce hardening of the arteries, and the plaque bacteria can cause clots in human blood in the test tube.

The theory is that gum disease is part of a chain reaction of inflammatory damage. Now researchers are undertaking studies to see if treating gum disease can ward off heart and artery disease. C. CLAIBORNE RAY