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## When surgery just isn't necessary In some cases, non-operative care shows more promise for successful rehabilitation than surgery

By: Hayley Millard

**Those afflicted with asymptomatic carotid stenosis (ACS) have accumulated plaque constricting the arteries. It sounds bad, but they may not have stroke warning symptoms...and only a one per cent chance of having a heart attack or stroke within the next year. Still, they're routinely subjected to invasive surgery to remove plaque in the carotid artery.**

Dr. David Spence, Director of Stroke Prevention and Atherosclerosis at The University of Western Ontario's Robarts Research Institute, thinks that's wrong. "Surgery just isn't necessary," he says. His prescription? Treatment to prevent plaque progression, and a Mediterranean diet, praised for healthy olive oil, fish and vegetables that are very heart healthy. Indeed, non-operative care, such as dietary intervention, physical fitness and medical therapy, are showing success in treating some chronic medical conditions at the University of Western Ontario's Schulich School of Medicine.

Physicians such as Spence, who presented his research findings at the World Stroke Congress in Vienna, Austria, in October 2008, have found that medical therapy can effectively treat patients with ACS instead of surgery. The suggested non-operative care involves quitting smoking, a heart-healthy diet, exercise, blood pressure control, lowering cholesterol and treating elevated homocysteine – a clotting factor that ultimately also contributes to plaque build up.

Here's how they know. Spence and his colleagues followed 468 of their patients with asymptomatic carotid stenosis. Microemboli, the plaque that can break away from the arterial wall and lead to stroke, were present in 12.6 per cent of the patients. But after medical therapy was prescribed to slow carotid plaque progression, just 3.7 per cent of the patients had microemboli present. Spence says the number of heart attacks and strokes among the group with the therapy significantly declined as well.

It's not just about stroke prevention patients. Dr. Bob Litchfield, Medical Director of the Fowler Kennedy Sport Medicine Clinic at the



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London Health Sciences Centre, says unnecessary surgery has been a problem for patients with chronic knee ailments too.

He found those with osteoarthritis of the knee experienced significant long-term benefits from non-operative care methods, and that knee surgery may not be necessary in some cases if a patient could gain equal benefits from non-operative care.

Litchfield observed patients in clinical trials at the Fowler Kennedy Sport Medicine Clinic over a span of two years. One group of patients with osteoarthritis underwent arthroscopic debridement surgery to remove torn cartilage, and another group with osteoarthritis did not undergo any surgery. Both groups were put through arthritis management – a non-operative route to treating osteoarthritis through physical therapy, weight and nutrition management and pain medications. The surgery patients only experienced short-term joint pain relief, which returned again after two years. However, both groups responded very well to non-operative care in the long-run and reported that the regimen managed their pain.

In this case, the surgery provided no additional therapeutic value when added to the physical therapy and pain management regimen. "Now, we can try to individualize our non-operative care and determine the best combination of methods when evaluating each of our patients with osteoarthritis," says Litchfield.

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