

# Cardiac catheterizations cause small risk of stroke and other neurological complications

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(Medical Xpress) -- When a patient undergoes a cardiac catheterization procedure such as a balloon angioplasty, there's a slight risk of a stroke or other neurological complications.

While the risk is extremely small, [neurologists](#) nevertheless may expect to see catheterization-induced complications because so many procedures are performed, Loyola neurologists write in the journal MedLink Neurology.

Cardiac catheterizations include diagnostic angiograms, balloon angioplasties and stent placements. More than 1.4 million procedures are successfully performed each year. Cardiac catheterizations, like all medical treatments, carry some degree of risk. But because the risk is low, neurologists rarely see patients who experience [neurological complications](#). The purpose of the MedLink article is to raise awareness of the risks and to list treatment options when complications do occur.

The procedure involves inserting a catheter (thin tube) in the groin or arm and guiding it to the heart. In rare cases, debris can be knocked loose from [blood vessel walls](#), travel to the brain and trigger a stroke or [transient ischemic attack](#) (mini stroke). Tiny bubbles released from the catheter also can trigger a stroke or transient ischemic attack. And bleeding in the groin or arm where the catheter is inserted can cause peripheral nerve damage.

However, the risk is slight. And with the use of more refined techniques

and smaller and softer catheters, the risk is getting even smaller, said H. Steven Block, MD, first author of the review article.

"We want to be careful to not scare people who need a cardiac catheterization from getting this beneficial procedure," Block said.

Indeed, because the incidence is so low, it is difficult to perform randomized clinical trials to determine the best treatment for catheterization-induced neurologic complications, the authors write.

"Cardiac catheterization is a very safe procedure," Block added. "A lot of neurologists may encounter neurologic complications only once or twice during their careers. But we would like to raise awareness and knowledge, so they are better prepared when a case does happen."

Provided by Loyola University Health System

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