

Experts create classification system for leading cause of kidney failure

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An international group of medical experts has crafted a much-needed classification system for diabetic nephropathy, the leading cause of total kidney failure, according to a study appearing in an upcoming issue of the *Journal of the American Society Nephrology (JASN)*. The effort should improve communication among health professionals, help researchers design better clinical studies, and guide patient care.

Current estimates suggest that 285 million people worldwide will live with diabetes in 2010 and that the incidence of diabetes will continue to rise. As a result, the incidence of diabetic nephropathy, or [kidney damage](#) that arises as a complication of diabetes, will likely increase as well.

Diabetic nephropathy is a complex condition with varying degrees of severity and varying effects on the kidneys. While researchers do not fully understand the mechanisms involved in the development and progression of diabetic nephropathy, they know that too much blood sugar in diabetic patients can damage the clusters of tiny blood vessels in the kidneys that help remove waste from the body. Eventually, the kidney structures begin to leak and [kidney failure](#) ensues.

Unlike other [kidney](#) conditions, diabetic nephropathy has no standard classification system. Recently, however, a unique cooperative effort among groups of experts from 16 universities spread over seven countries in three continents developed a uniform international classification system that reflects the current understanding of the

various forms of diabetic nephropathy. Jan Anthonie Bruijn, MD, PhD (Leiden University Medical Center, the Netherlands), who led the effort, hopes that the classification system will standardize definitions of different classes of diabetic nephropathy and encourage uniform and reproducible reporting of cases among different medical centers.

The new classification system categorizes diabetic nephropathy by varying degrees of severity that will be easy to discern in the clinic. The experts divided the condition into four progressive classes, with the first class being the mildest and the fourth class being the most severe. The system may help guide clinicians as they treat affected patients. In addition, it could aid researchers as they continue to search for the mechanisms involved in the development and progression of diabetic nephropathy.

More information: The article, entitled "Pathologic Classification of Diabetic Nephropathy," will appear online at jasn.asnjournals.org/ on February 18, 2010, [doi 10.1681/ASN.2010010010](https://doi.org/10.1681/ASN.2010010010) .

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