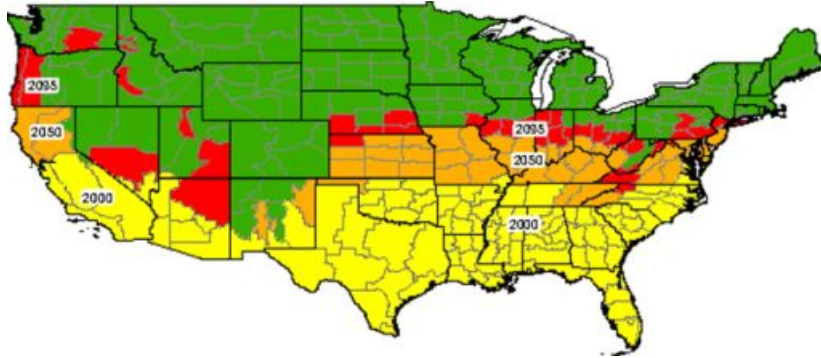


Kidney Stone Belt ^[1]

Kidney Stone Belt

by Rusty Rains, 2006

See also: [Iced Tea](#) ^[2]



"Growth of the U.S. "kidney stone belt" in response to projected climate change. Risk increases with time from red > orange > yellow. " From the National Academy of Sciences.

^[3] The [Kidney Stone Belt](#) ^[4] refers to the region in the southeastern United States where the rate of kidney stones, or kidney calculi, is excessive. North Carolina reportedly has the highest incidence of kidney stones in the nation; some research indicates that white males (the highest-risk group) have a 15 percent chance of developing kidney stones versus a much lower risk for the same group in other parts of the country. Sedentary white-collar workers are more likely to form stones than are active blue-collar laborers.

The reasons given for this high occurrence vary. In 1995 it was reported that the wide consumption of [iced tea](#) ^[2] in North Carolina could be a contributing factor, because tea is loaded with [calcium oxalate](#), which is a main ingredient in certain kinds of kidney stones. But more recent studies suggest that the consumption of tea actually reduces the risk of stone formation, in some cases by as much as 14 percent.

Another theory finds a correlation between the high incidence of kidney stone formation and the consumption of hard water. Because much of North Carolina remains rural, many people continue to use wells as their primary or only source of drinking water. The mineral content of water is thought to be a possible source of stone disease. According to some studies, excessive water hardness causes kidney stones to form and people with a history of stones should consider avoiding private wells. Still other studies suggest that water hardness has only a minor impact on stone formation. Some researchers believe that the high incidence of stones in North Carolina and in the South generally is coincidental and that the "kidney stone belt" is actually a myth.

Additional Resources:

PubMed Health, U.S. National Library of Medicine Kidney Stones:

<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001493/> ^[4]

"The Stone Belt Blue Ridge HealthCare urologist says iced tea may be to blame," by Anna Wilson, 2010, *The Morganton News Herald*. <http://www2.morganton.com/news/2010/mar/17/stone-belt-ar-68937/> ^[5].

Image Credit:

"Growth of the U.S. "kidney stone belt" in response to projected climate change. Risk increases with time from red > orange > yellow. " From the National Academy of Sciences. Available from <http://www.pnas.org/content/105/28/9449/F4.expansion.html> ^[3] (accessed October 15, 2012).

Subjects:

[Medicine](#) ^[6]

Authors:

[Rains, Rusty](#) ^[7]

From:

[Encyclopedia of North Carolina, University of North Carolina Press.](#) ^[8]

1 January 2006 | Rains, Rusty

Source URL:<https://ncpedia.org/kidney-stone-belt>

Links

[1] <https://ncpedia.org/kidney-stone-belt> [2] <https://ncpedia.org/iced-tea> [3] <http://www.pnas.org/content/105/28/9449/F4.expansion.html> [4] <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001493/> [5] <http://www2.morganton.com/news/2010/mar/17/stone-belt-ar-68937/> [6] <https://ncpedia.org/category/subjects/medicine> [7] <https://ncpedia.org/category/authors/rains-rusty> [8] <https://ncpedia.org/category/entry-source/encyclopedia->