

Eating millet can cut diabetes risks

September 9 2021



Pearl millet. Credit: Bishnu Sarangi from Pixabay

A millet-based diet could lower the risk of diabetes, a rapidly growing problem in Sub-Saharan Africa, a study suggests.

The finding offers the potential for nutritionists to design appropriate meals for people with [diabetes](#) as well as others without the disease as a preventive approach.

The [study](#), published August in the journal *Frontiers in Nutrition*, analyzes [millet](#) consumption and its impact on cardiovascular health. It found that people with diabetes who consumed millets as part of their daily diet saw their blood glucose levels drop by 12–15 percent.

According to the International Diabetes Federation Africa Region, over 19 million people aged 20–79 had diabetes in Sub-Saharan Africa in 2019. The disease is characterized by high levels of blood sugar in the body and can lead to other serious health complications.

"Consumption of millet-based diets helps reduce blood glucose level," says Anitha Seetha, a co-author of the study and senior nutrition scientist at International Crops Research Institute for the Semi-arid Tropics (ICRISAT).

Researchers analyzed data across existing studies to identify the significance of the impact of consuming millets on blood glucose levels. This included 65 global studies undertaken on humans with data on commonly monitored clinical parameters used in diabetes management.

Five of the studies came from Africa: two from Nigeria and one each from Ethiopia, Tanzania, and Sudan.

Researchers assessed [glycemic index](#) (GI)— the extent to which a specific carbohydrate-containing [food](#) raises blood glucose levels. Foods with a high glycemic index raise [blood glucose levels](#) more than foods with a low glycemic index.

The study found that millets have a low average glycemic index (GI) of 52.7—about 30 percent lower than for milled rice and refined wheat. The glycemic index of millets is between 14 and 37 points lower than for maize.

"Including millets in diets reduces the dietary glycemic index," explains Seetha. "Diversifying staples with millets can have a significant positive impact in management of diabetes and mitigation of its onset risk."

Joanna Kane-Potaka, a co-author of the study and executive director at ICRISAT led Smart Food Initiative that is about foods good for human beings, the planet and the farmer, says that millets offer other nutritional benefits too.

"Finger millet has extremely high calcium, three times more calcium than milk, and is good for growing children," she says. "All the millets, especially pearl millet and teff, are high in iron and zinc, which are in the top three micronutrient deficiencies globally. The millets also have good levels of protein."

"Diets across Africa and Asia are dominated by rice, wheat and maize, which make up almost 70 percent of the plate and provide a lot of starch with high GI and minimal nutrients," she adds.

She calls on consumers to demand more nutritious foods, such as millets, and governments to make policies to support this forgotten crop.

Countries in Africa with a high prevalence of diabetes include the Democratic Republic of Congo, Ethiopia, Nigeria, South Africa and Tanzania, according to Rosemary Botha, a co-author who was at the International Food Policy Research Institute in Malawi when the study was done.

"The numbers could be higher as three in five people with diabetes are undiagnosed. About 75 percent of the deaths due to diabetes were in people aged under 60," says Botha, who is now a monitoring and evaluation lead at the One Acre Fund.

Botha says it is estimated that by 2045 Africa will have 47 million people with diabetes, a 143 percent increase over the 2019 number. The diabetes-related health expenditure is also increasing with growing prevalence rates and currently US\$9.5 billion is spent on diabetes in Africa, according to another [study](#).

Alexander Kalimbira, an associate professor of human nutrition at Malawi's Lilongwe University of Agriculture and Natural Resources, tells SciDev.Net: "Dietitians and nutritionists have a reason to pay attention to the study because they have primary understanding and responsibility to promote healthful foods that have proven effectiveness in preventing surges in blood sugar levels."

"Food scientists would be critical in developing recipes and processing methods that preserve critical dietary components [such as millets] ...in Sub-Saharan Africa," he says, adding that experts in breeding crops should do more to make neglected crops such as millet more accessible to the general population.

More information: Seetha Anitha et al, Can Millet Consumption Help Manage Hyperlipidemia and Obesity?: A Systematic Review and Meta-Analysis, *Frontiers in Nutrition* (2021). [DOI: 10.3389/fnut.2021.700778](https://doi.org/10.3389/fnut.2021.700778)

Provided by SciDev.Net

Citation: Eating millet can cut diabetes risks (2021, September 9) retrieved 7 July 2024 from <https://medicalxpress.com/news/2021-09-millet-diabetes.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.