

## **Metabolic Syndrome Risk may Raise by Skipping Breakfast**

Skipping breakfast may be linked to a higher risk of [metabolic syndrome](#) (MetS), according to a study published. Since MetS is a major risk factor for cardiovascular disease (CVD), such findings highlight the potential importance of regular breakfast consumption for improved cardiometabolic health.



### **Study and Results**

Evidence suggests that people who skip [breakfast](#) may face a higher risk of MetS, but whether this relationship is causal remains unclear, prompting the current cross-sectional observational study.

The study involved 15,959 adults aged 35–74 years who were part of the Northwest China Cohort–Ningxia Project (CNC-NX). The typical diet here is rich in carbohydrates. Participants were asked to self-report on lifestyle factors like [smoking](#), alcohol, and breakfast consumption. Physical activity and food habits were also self-reported. Alongside, clinical data was collected (blood sugar, cholesterol levels, blood pressure, and waist circumference).

MetS was diagnosed by the presence of abdominal obesity plus two or more of the following: fasting hyperglycemia or diabetes, [blood pressure](#) 130/85 or higher, high plasma triglycerides or being on lipid-lowering medication, low high-density cholesterol (HDL).

In this group, 8.3 % never skipped breakfast, while 87.1 % reported [skipping breakfast](#) four or more times per week, meaning most participants fell into the frequent-skipping group. In all breakfast categories, the largest proportion comprised people between 50 and 65 years.

MetS prevalence was 76.7 %. Among participants with MetS, 59.8 % were female and 40.2 % were male, which reflects the sex composition of the sample rather than indicating a higher risk in women. Notably, when different criteria were used, the prevalence dropped to 42.6 %, because the alternative NCEP ATP III criteria use higher thresholds for waist circumference and fasting [blood](#) glucose than the IDF criteria applied for Asian populations.

The subgroup that skipped breakfast most often, four or more times a week, had about 24 % higher odds of having MetS compared to those who regularly consumed breakfast. Among males, the odds were about 33 % higher among those who routinely skipped breakfast compared to those who never did, suggesting the association may be stronger in men. This was similar to the increase among those with a [body mass index](#) (BMI) between 24 and 27.9 kg/m<sup>2</sup>.

When individual MetS components were analyzed, those who skipped breakfast four or more times a week were more likely to have high fasting blood sugar levels (about 33 % higher odds), high blood pressure (about 25 % higher odds), and [low HDL-cholesterol](#) (about 40 % higher odds) compared to those who regularly had breakfast. Abdominal obesity and high triglyceride levels were not associated with skipping breakfast.

These findings agree with prior research in other populations, but do not fully control for other important factors such as sleep patterns and diet quality. However, these findings were robust to adjustment for other factors, including demographic and [lifestyle factors](#). Sensitivity analyses also confirmed their robustness. Moreover, the association continued to be observed when alternative MetS criteria were used.

According to the authors, skipping breakfast prolongs the overnight fast, which may trigger hyperinsulinemia and [insulin resistance](#). This could help explain the observed rise in fasting blood glucose.

Skipping breakfast may coexist with changes in [food intake](#) later in the day, or altered metabolic response to prolonged fasting. This may also contribute to the observed low HDL levels. These hypothesized mechanisms may help explain the observed association. The authors emphasize that these are not causal inferences due to the cross-sectional nature of the study.

### **Conclusion**

Skipping breakfast is associated with MetS among adults. Encouraging middle-aged and older adults with a high BMI to have breakfast regularly may be a practical strategy worth evaluating in future research and [public health](#) programs, particularly in regions with high cardiometabolic risk.

Future experimental studies with longitudinal follow-up are required to provide causality data and decide on the impact of regular [breakfast consumption](#) on MetS risk.

### **Source:**

<https://www.news-medical.net/news/20260316/Skipping-breakfast-may-raise-metabolic-syndrome-risk.aspx>