

US Diabetes Rates Rise to Nearly 1 in 6 Adults

Analysis by [Dr. Joseph Mercola](#)

January 13, 2025

STORY AT-A-GLANCE

- › CDC data shows diabetes prevalence has reached 15.8% of U.S. adults, with 11.3% diagnosed and 4.5% undiagnosed, highlighting an urgent need for increased screening and prevention
- › Men face higher diabetes risk (18%) compared to women (13.7%), while rates surge dramatically with age, affecting 27.3% of adults over 60 and 24.2% of those with obesity
- › The HOMA-IR test provides a simple way to detect insulin resistance early, calculating the relationship between fasting glucose and insulin levels to evaluate metabolic health
- › Excess linoleic acid, found in seed oils and processed foods, triggers inflammation and disrupts insulin signaling pathways, making cells less responsive to insulin and accelerating the progression toward diabetes
- › A significant increase in linoleic acid consumption since the mid-20th century contributes to diabetes by disrupting mitochondrial function and cellular energy production

Nearly 1 in 6 American adults now live with diabetes, according to the U.S. Centers for Disease Control and Prevention (CDC).¹ The data, from the National Health and Nutrition Examination Survey (NHANES) spanning August 2021 to August 2023, reveal that the overall prevalence of diabetes in the U.S. has climbed to 15.8%.

This figure includes both diagnosed and undiagnosed cases, with 11.3% of adults aware they have diabetes and an additional 4.5% living with the condition without a formal

diagnosis. The rise in total diabetes prevalence marks a significant public health challenge, underscoring the need for increased awareness, early detection and effective management strategies.²

Diabetes often leads to severe complications affecting your nervous system, kidneys, eyes, heart and blood vessels, making prevention and treatment essential for optimal health. Mitochondrial poisons that harm your cellular energy production are a driving force behind chronic diseases like Type 2 diabetes.

Higher Diabetes Rates Among Men, Older Adults and Those with Obesity

If you're male, the statistics show that you're at a higher risk for both total and diagnosed diabetes compared to women. The NHANES data indicate that 18% of U.S. men have diabetes, with only 12.9% of them being diagnosed, versus 13.7% and 9.7% for women, respectively.³ This gender disparity suggests that men may need to be even more vigilant about their health concerning diabetes.

While the prevalence of undiagnosed diabetes doesn't differ significantly between men and women, the higher rates of diagnosed diabetes in men highlight the importance of regular screenings and proactive health measures. Factors contributing to this increased risk in men could include lifestyle choices, biological differences and possibly lower rates of health care utilization.

As you age, your risk of developing diabetes also increases. According to the CDC findings, diabetes prevalence jumps from 3.6% in adults aged 20 to 39 to a staggering 27.3% in those 60 and older.⁴ Additionally, weight plays a role in this risk. Individuals with obesity face a diabetes prevalence of 24.2%, compared to 12.3% in the overweight category and 6.8% among those with normal or underweight status.⁵

These trends highlight how both aging and increased weight status significantly elevate your chances of developing diabetes. Managing your weight through a healthy diet and regular physical activity will substantially reduce your risk.

The NHANES data also show a clear inverse relationship between educational attainment and the prevalence of diabetes. Adults with only a high school diploma, GED or less have a total diabetes prevalence of 19.6%, which decreases to 10.7% among those holding a bachelor's degree or higher.⁶

Similarly, diabetes rates drop from 14.6% in less educated groups to 7.3% in those with advanced education. This correlation suggests that higher education levels may provide better access to health information, resources and healthier lifestyle choices, all of which contribute to lower diabetes risk.

Understanding HOMA-IR – A Simple Test for Insulin Resistance

Recognizing insulin resistance early is essential, as it's a warning sign for your metabolic health – one that often precedes Type 2 diabetes. The HOMA-IR (Homeostatic Model Assessment of Insulin Resistance) is a valuable diagnostic tool that helps assess insulin resistance through a simple blood test. Created in 1985, it calculates the relationship between your fasting glucose and insulin levels to evaluate how effectively your body uses insulin.

Unlike other more complex tests, HOMA-IR requires just one fasting blood sample, making it both practical and accessible. This simplicity allows doctors and patients to screen for early signs of insulin resistance, monitor prediabetes risk, track treatment effectiveness over time and guide intervention strategies. The HOMA-IR formula is as follows:

HOMA-IR = (Fasting Glucose x Fasting Insulin) / 405, where

- Fasting glucose is measured in mg/dL
- Fasting insulin is measured in $\mu\text{IU/mL}$ (microinternational units per milliliter), and
- 405 is a constant that normalizes the values

If you're using mmol/L for glucose instead of mg/dL, the formula changes slightly:

HOMA-IR = (Fasting Glucose x Fasting Insulin) / 22.5, where

- Fasting glucose is measured in mmol/L
- Fasting insulin is measured in μ U/mL, and
- 22.5 is the normalizing factor for this unit of measurement

Anything below 1.0 is considered a healthy HOMA-IR score. If you're above that, you're considered insulin resistant. The higher your values, the greater your insulin resistance. Conversely the lower your HOMA-IR score, the less insulin resistance you have, assuming you are not a Type 1 diabetic who makes no insulin. Insulin resistance often exists long before obvious signs of trouble, silently disrupting your body's balance and setting the stage for serious conditions later.

Interestingly, my personal HOMA-IR score stands at a low 0.2. This low score is a testament to my body's enhanced efficiency in burning fuel, a result of increased glucose availability. By incorporating additional carbohydrates into my diet, I provided my cells with the necessary energy to operate more effectively.

This improved cellular function has significantly boosted my metabolic health, demonstrating how strategic dietary adjustments lead to better insulin sensitivity and overall metabolic performance.

Are Nutrient Deficiencies Involved?

Lifestyle changes such as diet and exercise have been shown to prevent Type 2 diabetes more effectively than the drug metformin alone,⁷ however nutrient deficiencies may also play a role. **Vitamin B6**, for instance, plays a role in blood sugar regulation through "first responder" beta cells in the pancreas. Some cases of diabetes may, in fact, be linked to vitamin B6 deficiency or dysfunction.⁸

Further, there's an inverse relationship between vitamin D and HbA1c levels, a key marker of long-term blood sugar control – as vitamin D increases, HbA1c decreases.⁹ This suggests that maintaining adequate vitamin D levels, ideally through safe sun

exposure, helps manage blood sugar and reduce your risk of developing Type 2 diabetes.

Minerals like zinc,¹⁰ magnesium and chromium are also essential for glycemic regulation. Magnesium supplementation, for instance, has been shown to enhance insulin sensitivity in diabetic patients and improve symptoms of depression and anxiety.¹¹

By ensuring adequate intake of these vitamins and trace minerals through diet, targeted supplementation or sunlight exposure in the case of vitamin D, you may be able to support both your blood sugar control and mental well-being. However, another pernicious dietary factor is involved in driving the chronic disease epidemic, including Type 2 diabetes – linoleic acid (LA).

The LA Surge – A Decade of Dietary Change and Metabolic Impact

You may not realize it, but your diet today is vastly different from what it was just a century ago, particularly in your intake of LA. Since the mid-20th century, the consumption of LA, an omega-6 polyunsaturated fatty acid found in seed oils and most processed foods, has skyrocketed in Western diets. This dramatic increase coincides with the unprecedented rise in chronic metabolic diseases like obesity and Type 2 diabetes mellitus.¹²

While LA is essential for maintaining healthy skin and other bodily functions, its overconsumption raises concerns about its role as a metabolic poison that interferes with mitochondrial function and disrupts glucose homeostasis. Historically, humans consumed LA at much lower levels, and our bodies evolved to manage these amounts effectively.

However, the modern abundance of LA overwhelms these regulatory systems, contributing to insulin resistance and impaired glucose metabolism, as explained in a review published in *Prostaglandins, Leukotrienes and Essential Fatty Acids*.¹³ As you

make dietary choices, understanding the surge in LA intake and its metabolic repercussions is key to avoiding diabetes and reversing it if you've already been diagnosed.

How Linoleic Acid Disrupts Glucose Balance

When you consume LA, it undergoes various metabolic processes, leading to the formation of bioactive metabolites like oxidized linoleic acid metabolites (OXLAMs) and arachidonic acid (AA). These metabolites interfere with insulin signaling, a component in maintaining your blood glucose levels.

For instance, certain OXLAMs have been shown to impair insulin secretion from pancreatic beta-cells, the very cells responsible for regulating your blood sugar.¹⁴ Additionally, AA-derived eicosanoids promote inflammation and oxidative stress, further disrupting insulin sensitivity in your muscles and liver.

This biochemical turmoil makes it harder for your body to utilize glucose effectively, paving the way for insulin resistance and, eventually, diabetes. Understanding these molecular disruptions highlights the importance of moderating LA intake to preserve the delicate balance of your glucose homeostasis and prevent the onset of metabolic disorders like diabetes.

Inflammation and Insulin Resistance – The Hidden Link of LA

Inflammation plays a pivotal role in the development of insulin resistance, and LA is intricately connected to this process. When you consume high levels of LA, your body produces more proinflammatory eicosanoids, which trigger chronic low-grade inflammation. This persistent inflammatory state interferes with insulin signaling pathways, making your cells less responsive to insulin's effects.

As a result, your body needs to produce more insulin to achieve the same glucose-lowering effect, leading to hyperinsulinemia. Over time, this compensatory mechanism exhausts your pancreatic beta-cells, reducing insulin production and exacerbating

insulin resistance. Moreover, inflammatory markers like C-reactive protein and interleukin-6, which are elevated with increased LA intake, have been linked to higher risks of developing Type 2 diabetes.¹⁵

By fostering an inflammatory environment, excessive LA consumption not only disrupts your metabolic balance but also accelerates the progression toward diabetes.

Recognizing this hidden link emphasizes the need for dietary strategies that minimize inflammation to maintain insulin sensitivity and metabolic health.

Lack of Cellular Energy Drives Chronic Diseases Like Diabetes

The primary reason why excess LA is harmful to your health is because it disrupts your cellular powerhouses – the mitochondria. Think of mitochondria as tiny energy factories in your cells that produce adenosine triphosphate (ATP), the essential fuel that keeps your cells running and repairing themselves.

Without energy, your cells can't repair and regenerate themselves. So, the fundamental issue underlying most chronic disease is that your cells are not producing enough energy. In addition to LA, exposure to synthetic **endocrine-disrupting chemicals** (EDCs), estrogen and pervasive electromagnetic fields (EMFs) also impair your cells' ability to generate energy efficiently.

This energy deficit makes it challenging to sustain the oxygen-free gut environment necessary for beneficial bacteria like Akkermansia to flourish, further complicating the problem.

Instead, a lack of cellular energy creates an environment in the gut that favors endotoxin-producing bacteria, further damaging mitochondria, triggering insulin resistance and creating a vicious cycle of worsening health. By tackling the "Four E's" – excess LA, estrogens (**xenoestrogens found in everyday items** like plastic), EMFs and endotoxins – you restore your cellular energy and start down the path toward optimal health.

Sources and References

- [1, 2, 3, 4, 5, 6 NCHS Data Brief No. 516, November 2024](#)
- [7 BMC Endocr Disord. 2023 Sep 18;23:198](#)
- [8 Science Advances June 26, 2024](#)
- [9 Apollo Medicine April 2024](#)
- [10, 11 Nutrients. 2023 Sep 10;15\(18\):3929](#)
- [12, 13, 14, 15 Prostaglandins Leukot Essent Fatty Acids. 2021 Oct 29;175:102366](#)