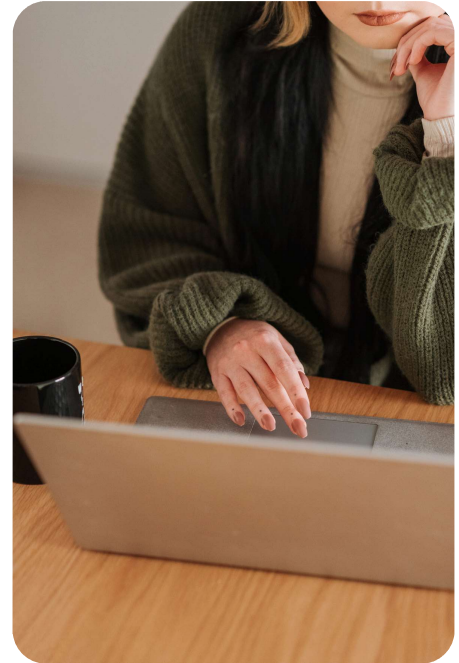


The Current State of Diabetes – What Mental Health and Dietary Professionals Need to Know About the Latest on Treatments, Research, and Co-Occurring Illnesses

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Overview

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DIABETES IN AMERICA

Prevalance



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CURRENT TREATMENT OPTIONS

History
Barriers
Future



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RESEARCH

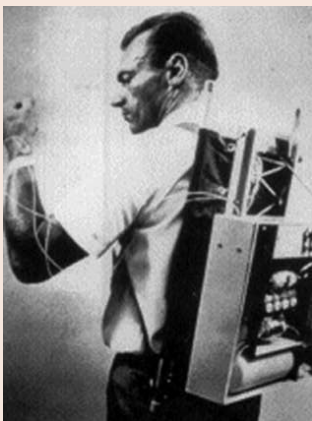
Treatment
Co-Occuring Illnesses
Cure



About Me



Diabetes Advancements



1921

Insulin discovered

1970's

First commercial insulin pump
Scientists discovered human-based insulin

1980's

First take-home glucose system

1990's

Short-acting insulin
Continuous Glucose Monitor approved by FDA

Type 1 Diabetes

Type 2 Diabetes

Gestational Diabetes

- Cause
- Diagnosis
- Treatment
- Prevalence
- Cure



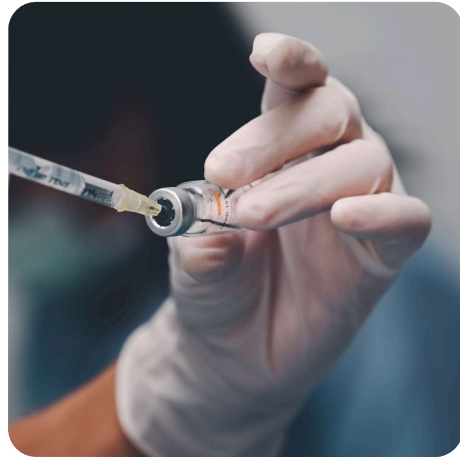
Diabetes in America

PREVALANCE

- **Total:** 38.4 million people have diabetes (11.6% of the U.S. population)
- **Diagnosed:** 29.7 million people, including 29.4 million adults
- **Undiagnosed:** 8.7 million people (22.8% of adults with diabetes are undiagnosed)
- 352,000 children and adolescents younger than age 20 years—or 35 per 10,000 U.S. youths—had diagnosed diabetes. This includes 304,000 with type 1 diabetes.
- 1.7 million adults aged 20 years or older—or 5.7% of all U.S. adults with diagnosed diabetes—reported both having type 1 diabetes and using insulin.

Among U.S. adults aged 18 years or older, age-adjusted data for 2019–2021 indicated the following:

- Highest among American Indian and Alaska Native adults (13.6%), followed by non-Hispanic Black adults (12.1%), adults of Hispanic origin (11.7%), non-Hispanic Asian adults (9.1%) and non-Hispanic White adults (6.9%)
- 13.1% of adults with less than a high school education had diagnosed diabetes versus 9.1% of those with a high school education and 6.9% of those with more than a high school education
- Adults with family income above 500% of the federal poverty level had the lowest prevalence for both men (6.3%) and women (3.9%)
- For both men and women, prevalence was higher among adults living in nonmetropolitan areas compared to those in metropolitan areas



SOURCE: CENTER FOR DISEASE CONTROL, NATIONAL DIABETES STATISTIC REPORT, 05/15/24

AMONG U.S. CHILDREN AND ADOLESCENTS AGED YOUNGER THAN 20 YEARS, FOR THE PERIOD 2002-2018

- Incidence of type 1 diabetes increased
- Non-Hispanic Asian or Pacific Islander children and adolescents had the largest significant increases
- Non-Hispanic White children had the highest incidence
- type 2 diabetes significantly increased
- type 2 diabetes significantly increased for all racial and ethnic groups, especially Asian or Pacific Islander, Hispanic, and non-Hispanic Black
- Non-Hispanic Black children and adolescents had the highest incidence of type 2 diabetes



SOURCE: WAGENKNECHT LE, LAWRENCE JM, ISOM S, ET AL. 2023.



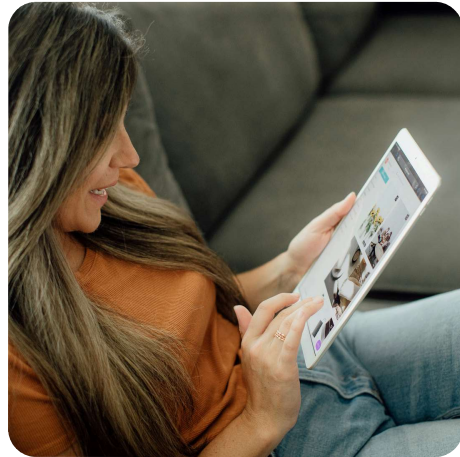
- DIABETES IS CURRENTLY THE MOST EXPENSIVE CHRONIC DISEASE IN THE NATION
- TOTAL COST OF DIABETES IN 2022 WAS OVER \$400 BILLION,
- ONE OF EVERY FOUR HEALTH CARE DOLLARS SPENT IN THE U.S.

Chua K, Lee JM, Conti RM. Out-of-Pocket Spending for Insulin, Diabetes-Related Supplies, and Other Health Care Services Among Privately Insured US Patients With Type 1 Diabetes. JAMA Intern Med. 2020



**1.3 million
Americans
ration their
insulin**

“I thought insulin was only \$35 now?”



From: **Out-of-Pocket Spending for Insulin, Diabetes-Related Supplies, and Other Health Care Services Among Privately Insured US Patients With Type 1 Diabetes**

JAMA Intern Med. 2020;180(7):1012-1014. doi:10.1001/jamainternmed.2020.1308

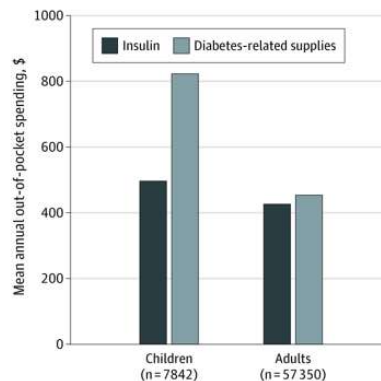


Figure Legend:

Mean Annual Out-of-Pocket Spending for Insulin and Diabetes-Related Supplies Among Privately Insured Children and Adults With Type 1 Diabetes. Diabetes-related supplies include insulin pumps and supplies (eg, pump unit, infusion sets), continuous glucose monitors and supplies (eg, sensors, transmitters, and receivers), glucometers and supplies (eg, meter, lancets, glucose strips), urine testing strips, blood ketone tests, needles, and syringes. Data from IBM Watson Health.³

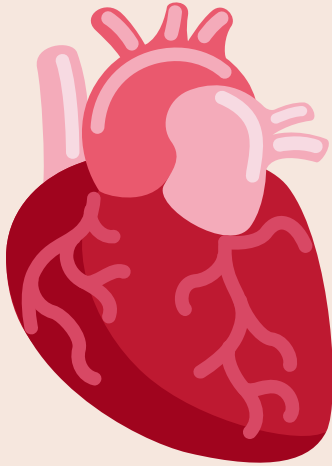


“Financial toxicity is when medical expenses begin to negatively affect all areas of a patient’s life, impacting both their physical and mental health.”

Evan Reynolds, Ph.D. lead statistician for the NeuroNetwork for Emerging Therapies at Michigan Medicine

- High cost of medication causes people to either adjust the amount or frequency of their medication in a way that does not comply with their physician’s recommendations or to forgo needed medication to manage their diabetes.
- CRN among people with diabetes is associated with high A1c levels, more symptoms, and declines in functioning.
- Over time, patients with cardiovascular disease, including diabetes, who use less of their medication than prescribed due to cost concerns are more likely to be hospitalized.

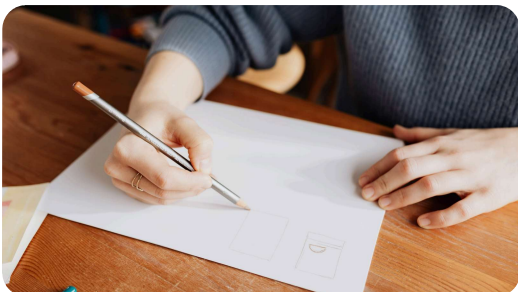
Diabetes Complications



- Diabetes leads with heart disease, stroke, blindness, kidney failure, and lower-limb amputation, among other conditions
- 94% had at least 1 diabetes complication during the course of their life
- 2 out of 3 die of heart disease and stroke
- Risk for cardiovascular disease mortality is 2-4 times higher
- 7th leading cause of death, though underreported

Source: Centers for Disease Control National Diabetes Statistics Report 2022; National Institutes of Health *SEARCH for Diabetes in Youth study; Type 1 Diabetes Index

Complications Continued



- People with diabetes are 2 to 3 times more likely to have depression than people without diabetes. Only 25% to 50% of people with diabetes who have depression get diagnosed and treated.
- People with diabetes are 20% more likely than those without diabetes to have anxiety.
- Women with diabetes are 2.5 times more likely to get diagnosed with an eating disorder
- Heightened suicide risk
- **Co-morbidities:**
 - 97.5% of adults with diabetes have at least one comorbidity
 - 88.5% have two comorbid conditions
 - Up to 40% of them have at least three.

Shuvo SD, Hossen MT, Riazuddin M, Hossain MS, Mazumdar S, Parvin R, Elahi MT. Prevalence of comorbidities and its associated factors among type-2 diabetes patients: a hospital-based study in Jashore District, Bangladesh. BMJ Open. 2023 Sep 11;

Cure



“If you can just hold on for five years, you’ll be cured of diabetes.”



Four Best Practices

1. Questions, not statements
2. Regularly screen for the side effects of financial costs, looking for signs of depression or anxiety
3. Treat holistically
4. Throw out labels and assumptions



Thank you!

Do you have any questions?

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