

Tuberculosis poses serious risk for patients with diabetes

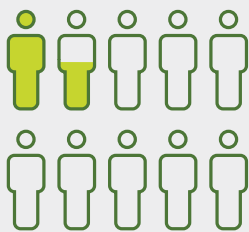


Protect your patients from tuberculosis with preferred blood-based screening

A connection between diabetes and tuberculosis (TB) has long been acknowledged. Diabetes and pre-diabetes are a major health problem in the US, and after some gains, rates of TB infection are now rising again.¹

People with diabetes are more likely to develop active TB disease and become sick once infected with TB than people without diabetes.²

The risk of tuberculosis is **2-3 times higher for patients with diabetes**, and diabetes doubles the risk of death or poor outcomes during TB treatment²⁻⁴



38.1 million US adults—**nearly 15%**—have diabetes⁶

Patients who have TB and diabetes are at greater risk of more severe TB disease and adverse TB treatment outcomes compared to those without diabetes^{1,5}

TB Risk

Diagnosed diabetes

The risk of TB disease is **significantly elevated** in people with diabetes—ie, about

▲ 2-3x higher

No diabetes

Diabetes increases the risk that latent tuberculosis infection (LTBI) will **progress to active TB**¹



Approximately

13M

people in the US are believed to **carry latent TB infection**⁷

Know when you should test for TB infection

Reduce the risk of future complications

Quest Diagnostics is the only national commercial reference lab to offer a choice of TB blood tests.⁸

Your Quest representative can help you decide which TB blood test may best serve your practice. Either option includes additional advantages from Quest, including broad health plan coverage, access to a single-tube draw option, and easy test ordering and tracking through our Quantum® Lab Services Manager with EHR integration.

Test name	Test code	CPT® codes
T-SPOT®.TB	37737	86481
QuantiFERON®-TB Gold Plus, 1 Tube	36970	86480
QuantiFERON®-TB Gold Plus, 4 Tubes, Draw Site Incubated	36971	86480

You may help prevent the development of active TB in your patients with diabetes by actively screening for and treating TB infection.

Compared to the century-old Mantoux skin test, TB testing with an IGRA blood test requires just 1 tube, 1 draw, and 1 visit, which can save providers and patients time and help identify TB quickly and easily.

- Blood-based IGRA testing is highly accurate and provides objective results, with a low rate of false positives^{7,9}
- IGRA testing is preferred in all cases by the CDC, ATS, and IDSA^{7,9}

TB is strongly influenced by social and economic determinants and health-related risk factors.

Particularly at risk are those who are¹⁰⁻¹³



- Immigrants
- Indigent
- Immunocompromised by
 - Diabetes
 - End-stage renal disease
 - Dialysis
 - HIV infection
- Affected by alcohol and substance use disorders
- Malnourished
- Cigarette smokers



For more information on TB IGRA testing, contact your Quest Diagnostics sales representative or visit [QuestDiagnostics.com/TBBloodTest](https://www.questdiagnostics.com/TBBloodTest)

References

1. Ngo MD, Bartlett S, Ronacher K. Diabetes-associated susceptibility to tuberculosis: contribution of hyperglycemia vs. dyslipidemia. *Microorganisms*. 2021;9(11):2282. doi:10.3390/microorganisms9112282
2. CDC. TB risk and people with diabetes. Updated and accessed November 6, 2024. <https://www.cdc.gov/tb/risk-factors/diabetes.html>
3. van Crevel R, Critchley JA. The Interaction of diabetes and tuberculosis: translating research to policy and practice. *Trop Med Infect Dis*. 2021;6(1):8. doi:10.3390/tropicalmed6010008
4. Yorke E, Atiase Y, Akpalu J, Sarfo-Kantanka O, Boima V, Dey ID. The bidirectional relationship between tuberculosis and diabetes. *Tuberc Res Treat*. 2017;2017:1702578. doi:10.1155/2017/1702578
5. Abbas U, Masood KI, Khan A, et al. Tuberculosis and diabetes mellitus: relating immune impact of co-morbidity with challenges in disease management in high burden countries. *J Clin Tuberc Other Mycobact Dis*. 2022;29:100343. doi:10.1016/j.jctube.2022.100343
6. CDC. National Diabetes Statistics Report. May 15, 2024. Accessed November 2024. <https://www.cdc.gov/diabetes/php/data-research/index.html>
7. CDC. Latent tuberculosis infection: a guide for primary health care providers. April 2024. Publication # 22-0468. Accessed November 4, 2024. <https://www.cdc.gov/tb/media/pdfs/Latent-TB-Infection-A-Guide-for-Primary-Health-Care-Providers.pdf>Data on file. Quest Diagnostics, 2024.
8. Data on file. Quest Diagnostics, 2024.
9. Mazurek GH, Jereb J, Vernon A, LoBue P, Goldberg S, Castro K; IGRA Expert Committee; CDC. Updated guidelines for using interferon gamma release assays to detect *Mycobacterium tuberculosis* infection—United States, 2010. *MMWR Recomm Rep*. 2010;59(RR05):1-25. Accessed November 8, 2024. <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5905a1.htm>
10. US Preventive Services Task Force. Screening for Latent Tuberculosis Infection in Adults: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2023;329(17):1487-1494. doi:10.1001/jama.2023.4899
11. World Health Organization. Global Tuberculosis Report, 2021. Section 6.3 TB determinants. Accessed July 15, 2024. <https://www.who.int/publications/digital/global-tuberculosis-report-2021/uhc-tb-determinants/determinants>
12. CDC. Dialysis safety. Guidelines, recommendations and resources. January 21, 2024. Accessed July 26, 2024. <https://www.cdc.gov/dialysis-safety/hcp/recommendations-resources/index.html>
13. CDC. Immigrant and refugee health. *Tuberculosis*. Published July 25, 2024. Accessed July 26, 2024. <https://www.cdc.gov/immigrant-refugee-health/hcp/domestic-guidance/tuberculosis.html>

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