**Prompt**[**Explain blood sugar levels by time of day | Try in Copilot Chat**](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fm365.cloud.microsoft%2Fchat%2Fentity1-d870f6cd-4aa5-4d42-9626-ab690c041429%2FeyJpZCI6IlZYTmxjbFl4ZkdoMGRIQnpPaTh2YzNWaWMzUnlZWFJsTFdsdWRDNXZabVpwWTJVdVkyOXRMM3hQU1VRNll6aGpaR0UxT0RZdE1HUTBaaTAwTTJKakxXRmlaR0l0TjJNNE1qRmpPVEV4WkdGaGZHWTFabVF6TWpoaUxXWXlNR1F0TkRBd1lTMDVOVGxsTFdNd05qazJPRFJoTmpJd05ud3lNREkxTFRBNExUSTVWREl5T2pVM09qRTVMak01TVRJMU56RmEiLCJzY2VuYXJpbyI6InNoYXJlTGlua1ZpYVJpY2hDb3B5IiwicHJvcGVydGllcyI6eyJwcm9tcHRTb3VyY2UiOiJ1c2VyIiwiY2xpY2tUaW1lc3RhbXAiOiIyMDI1LTA4LTI5VDIyOjU3OjE5LjIxMFoifSwiY2hhdFR5cGUiOiJ3ZWIiLCJ2ZXJzaW9uIjoxLjF9&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844664733%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=KQcFcz0%2BfGmFfbDUybETj6zi5tielCrWPSRWBrL%2Ba0c%3D&reserved=0)

Explain blood sugar levels by time of day

**Response**

Blood sugar levels naturally fluctuate throughout the day due to food intake, physical activity, stress, hormones, and sleep. Here's a breakdown of **typical blood sugar patterns by time of day**, based on medical guidelines and expert sources[[1]](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.singlecare.com%2Fblog%2Fblood-sugar-chart%2F&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844709071%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=muVEA%2BZYmwrDreT%2F%2BQLq0JEZJ1WnP3pAcs7vGSCEcGs%3D&reserved=0)[[2]](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.medicalnewstoday.com%2Farticles%2F317536&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844733337%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=89Oa3EPA%2BbNCPeydfpLbJ0nzY%2FNuo5KFn1EbzhocfHE%3D&reserved=0)[[3]](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdiabetesmealplans.com%2F15317%2Fblood-sugar-fluctuations%2F&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844752235%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=Fx1pL%2B2qRu5PnJmDo0yrAk1ZELy2gpiPQKQnI7YvXzI%3D&reserved=0):

**🕒 Morning (Upon Waking / Fasting)**

* **Without diabetes**: 70–99 mg/dL (3.9–5.5 mmol/L)
* **With diabetes**: 80–130 mg/dL (4.4–7.2 mmol/L)

**Why it matters**: Blood sugar may rise due to the **dawn phenomenon**, where early morning hormones (like cortisol) trigger glucose release from the liver[[3]](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdiabetesmealplans.com%2F15317%2Fblood-sugar-fluctuations%2F&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844771761%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=DN5G2qGiIcHH4pP0E05ZLmo2XFA1jjRI7%2FPa%2Bk4iTW0%3D&reserved=0).

**🍽️ Before Meals (Preprandial)**

* **Without diabetes**: 72–99 mg/dL (4.0–5.5 mmol/L)
* **With diabetes**: 80–130 mg/dL (4.4–7.2 mmol/L)

**Tip**: This is a good time to check how your body is maintaining glucose between meals.

**🍲 1–2 Hours After Meals (Postprandial)**

* **Without diabetes**: Less than 140 mg/dL (7.8 mmol/L)
* **With diabetes**: Less than 180 mg/dL (10 mmol/L)

**Why it matters**: Blood sugar spikes after eating, especially with high-carb meals. Monitoring helps assess how well your body processes glucose.

**🌙 Bedtime**

* **Without diabetes**: Less than 100 mg/dL (5.5 mmol/L)
* **With diabetes**: 100–140 mg/dL (5.5–7.8 mmol/L)

**Tip**: Stable bedtime levels help prevent overnight hypoglycemia or hyperglycemia.

**📈 Daily Fluctuations**

Blood sugar can vary **20–30 mg/dL (1.1–1.7 mmol/L)** throughout the day even in healthy individuals. Factors include:

* Meals and snacks
* Exercise
* Stress
* Illness
* Medications[[3]](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdiabetesmealplans.com%2F15317%2Fblood-sugar-fluctuations%2F&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844791334%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=xz99Bf%2FJyhr0nfkBKkG8sQL90YNw%2BMLycQAuMgfq72g%3D&reserved=0)

**📊 Summary Chart**

|  |  |  |
| --- | --- | --- |
| **Time of Day** | **Without Diabetes** | **With Diabetes** |
| Morning (Fasting) | 70–99 mg/dL | 80–130 mg/dL |
| Before Meals | 72–99 mg/dL | 80–130 mg/dL |
| 1–2 Hours After Meals | <140 mg/dL | <180 mg/dL |
| Bedtime | <100 mg/dL | 100–140 mg/dL |

Would you like a printable version of this chart or help setting up a tracking system for your readings?

**References**

[1] [Blood sugar charts: Normal levels by age and more - SingleCare](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.singlecare.com%2Fblog%2Fblood-sugar-chart%2F&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844811107%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=WUkdejy%2Fd3Os%2F3ENtli8RMiclcwC6XnIKrUGDT8Hk5o%3D&reserved=0)

[2] [Blood sugar chart: Target levels, management, risks, and more](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.medicalnewstoday.com%2Farticles%2F317536&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844832636%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=cs5g3THFTrL%2Fqtowo6HgutITdaCd9fIybzMvolAyWLw%3D&reserved=0)

[3] [Blood Sugar Fluctuations: Are They Normal? - Diabetes Meal Plans](https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdiabetesmealplans.com%2F15317%2Fblood-sugar-fluctuations%2F&data=05%7C02%7Csidney.goldbach%40bcldb.com%7C27926d9ba6d4431ab80d08dde75121e7%7Cdd390f43dbf746a882ae68d96b632784%7C0%7C0%7C638921057844852985%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=J1k8GCfUuK3ov0A7UpbnjdX8d4LEOMkmpoj8ryNjzMU%3D&reserved=0)

**Sidney Goldbach**