# Sex and hypoglycaemia in type 1 diabetes: what CGM data now show

Written by The Life Science Feed Editorial Team · Published 19 September 2026 · Edited by William Lopes

> Many people with type 1 diabetes worry that sex could send their glucose dangerously low, and that fear can quietly shape intimate life. Until now there has been very little data to answer it.
> A small study presented at EASD 2026 used continuous glucose monitoring to track what actually happens, and the answer is more reassuring, and more interesting, than the fear suggests.

**KEY TAKEAWAYS**

- Across 110 recorded events in 12 adults with type 1 diabetes, no clinically significant hypoglycaemia occurred.
- Glucose moved both ways: it fell by 27% in 58% of events and rose by 34% in 42%, and both patterns appeared in every participant.
- A higher starting glucose predicted a larger fall and a smaller rise, so people starting low tended to come up rather than down.
- Sex at night was followed by a modest fall, from 165 to 147 mg/dL, while daytime sex made no meaningful difference.
- The study had no comparison against nights without sex, so the night-time fall cannot yet be attributed to sex itself.
- Sexual dysfunction is common in type 1 diabetes, with a pooled prevalence of 38.5% in women and 42.5% in men, and deserves to be raised in clinic.

## Why does this question matter to people with type 1 diabetes?

Because the fear is real even where the evidence has been thin. Sexual intercourse is physical activity, and people with type 1 diabetes are taught that physical activity can drive glucose down. The Warsaw and Krakow team behind this abstract start from a simple observation: sex may be perceived as a hypoglycaemia risk, and that fear can affect intimacy and quality of life, yet glucose responses to sexual activity in type 1 diabetes have barely been studied.1

Fear of hypoglycaemia is not a minor concern in this population. In a Swedish study of 764 adults with type 1 diabetes, the frequency of severe hypoglycaemia was the factor most strongly associated with that fear, and the fear was more prevalent in women than in men.2 In the context of exercise specifically, the EASD and ISPAD position statement describes fear of hypoglycaemia as one of the strongest barriers people face.3 It is reasonable to expect the same anxiety to follow people into the bedroom.

Sexual health in type 1 diabetes is already under strain for other reasons. A meta-analysis found a pooled prevalence of female sexual dysfunction of 38.5% in women with type 1 diabetes, with odds 3.77 times those of healthy controls, and identified depression and longer diabetes duration as predictors.4 A separate meta-analysis of 19 studies covering 3,788 men put the prevalence of erectile dysfunction in type 1 diabetes at 42.5%.5

Against that background, a fear that sex itself is dangerous adds an avoidable burden on top of problems that already exist. If the fear turns out to be largely unfounded, saying so clearly is a form of treatment. That is the case this abstract is trying to test, using the continuous glucose data that many patients now carry with them all day.

## What did the study actually do?

Twelve adults with type 1 diabetes took part in a prospective observational study: 7 women and 5 men, with a median age of 36 and an age range from 21 to 64. Mean body mass index was 23.8 kg/m². All used continuous glucose monitoring, either FreeStyle Libre 2 or Guardian 4.1

Treatment was split evenly. Six participants used multiple daily injections and six used insulin pumps, of whom two used automated insulin delivery systems. None of the men reported erectile dysfunction.1 Over three months, participants marked each episode of sexual intercourse in their CGM app, and the researchers analysed glucose data from two hours before each event to six hours after it.

That window was chosen to capture both an immediate effect and a delayed one. Hypoglycaemia risk persists after exercise as well as during it,3 and a six-hour follow-up is long enough to catch a fall during sleep after sex at night, which is precisely the scenario that tends to worry patients most.

The team then looked for patterns by subgroup. They compared daytime events, between 06:00 and 20:00, with nighttime events, between 20:00 and 06:00. They also compared participants by body mass index, above and below 25 kg/m², and examined whether diabetes duration or the method of insulin delivery changed the response.1 Because each participant contributed many events over three months, every person effectively served as their own comparison across repeated episodes, which is a more informative design than a single recorded event per person would have been.

## What happened to glucose?

Across 110 recorded events, no clinically significant hypoglycaemia occurred.1 That is the headline, and it holds even though glucose clearly moved. Every participant using a pump reported removing it during sex, which removes insulin delivery for that period and is one plausible reason glucose did not fall further.

The more interesting finding is that glucose moved in both directions. In 64 events, 58% of the total, mean glucose fell by 27%, from 180 to 132 mg/dL. In the other 46 events, 42% of the total, it rose by 34%, from 122 to 164 mg/dL.1 Both patterns appeared in every single participant, so this was not a split between two kinds of people. The same person could see a fall one night and a rise the next.

The starting glucose went some way to explaining which way it went. Higher glucose before sex was associated with a larger fall when glucose fell, and with a smaller rise when it rose.1 In other words, people who started high tended to come down, and people who started low tended to come up, which is the opposite of the pattern that would make sex dangerous for someone already running low.

Timing and body size also mattered. Sex at night, 66 events, was associated with a significant fall, from 165 to 147 mg/dL, whereas daytime sex, 44 events, made no meaningful difference. Participants with a body mass index of 25 or above saw a larger fall, of 10.7%, than those below 25, whose fall of 5.6% was not significant.1 Glucose two hours after sex did not differ from glucose six hours after it, which argues against a delayed drop building up later.

## What the study cannot tell us

This is a small study. Twelve participants and 110 events are enough to show that clinically significant hypoglycaemia was not seen, but not enough to rule out that it happens occasionally. A rare event can easily go unobserved in a sample of this size, and "not observed" is not the same as "does not happen".

The sample is also narrower than the population it describes. None of the men reported erectile dysfunction, yet the meta-analysis above puts its prevalence at 42.5% in men with type 1 diabetes.5 Mean body mass index was in the normal range. The people who took part may have been more comfortable discussing sexual activity and more engaged with their own glucose data than average, and the results may not apply to people whose diabetes or sexual health is harder to manage.

The data depend on participants marking each event, which introduces uncertainty about exactly when sex began and ended, and whether every event was recorded. Pump removal was reported by every pump user but not measured, so its duration and its contribution to the results are unknown. The abstract also does not define the threshold it used for clinically significant hypoglycaemia.

This is a conference abstract, not a peer-reviewed paper, and the subgroup findings in particular rest on small numbers. The nighttime and body mass index effects are interesting and plausible, but they should be read as hypotheses for a larger study rather than as rules to give patients.

One comparison is missing that would matter a great deal. The abstract compares glucose before and after each event, but does not report glucose over the same hours on nights without sex. Overnight glucose changes for many reasons unrelated to activity, including basal insulin action and the timing of the evening meal. Without that control window, the modest night-time fall cannot be confidently attributed to sex itself rather than to what glucose would have done anyway.

## What should clinicians tell patients?

The authors' conclusion is a reassuring one: in adults with type 1 diabetes, sexual intercourse does not appear to increase the risk of clinically significant hypoglycaemia, even at night.1 For a patient avoiding intimacy because of that fear, this

is useful evidence to share, stated honestly as a small study with a clear result rather than a guarantee.

The bidirectional finding is worth explaining rather than glossing over. A patient who notices glucose rising after sex may otherwise assume something has gone wrong, and one who notices it falling may take carbohydrate they do not need. Knowing that both patterns are normal, and that the starting level strongly shapes which one happens, can reduce both anxiety and unnecessary correction.

The nighttime pattern points to one sensible precaution. Because sex at night was followed by a modest fall, people who go to sleep afterwards may reasonably check their glucose first, particularly if it is already at the lower end of their range. That is an ordinary step borrowed from exercise management rather than a new restriction, and it fits the broader guidance on managing glucose around physical activity.3

Finally, the question deserves to be asked at all. Sexual dysfunction is common in type 1 diabetes and rarely raised in a routine appointment, and fear of hypoglycaemia is one more reason it may go unmentioned.2,4,5 The authors frame their findings as support for clinical counselling, and the most valuable use of this abstract may simply be to give clinicians and patients a reason to have that conversation.

## EDITORIAL & AI STANDARDS

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