

No, GLP-1 drugs won't detach your fingernails

A Healthy Skepticism Case Study

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On 13 October 2026, Vice ran a story under the headline "There's a New GLP-1 Side Effect, and It's Pretty Gross" [5]. The second sentence says the drugs may make your fingernails fall off. The story rests on a press release from a dermatology congress in Vienna. The release describes a questionnaire answered by 1,904 people, 575 of them taking a GLP-1 drug such as Ozempic or Wegovy and 1,329 not [2].

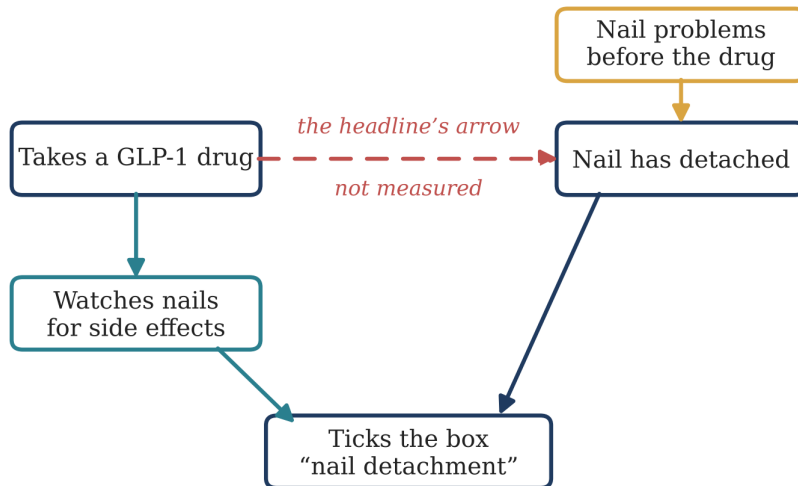
The story has one flaw that settles it, and this paper is about that flaw. The fault is the causal leap, taking a correlation for a cause, which is one of the six faults described on the home page of healthy-skepticism.com. Three smaller faults ride along, and they get a short section near the end. Nothing here is advice about taking or stopping a drug, because that decision is between you and your doctor.

What the study measured

The press release calls it the first controlled study of GLP-1 drugs and nails [2]. In the study, 575 people taking a GLP-1 drug and 1,329 people with type 2 diabetes, obesity or both who had never taken one filled in a questionnaire about their symptoms, including whether they had nail detachment. About 224 of the 575 on the drug said yes, against about 120 of the 1,329 not on the drug, which is 39 in 100 against 9 in 100 [2]. The counts here and below are the release's percentages applied to its group sizes.

No one examined a nail, so the study did not measure nails at all. It measured ticks on a form, and the headline treats a tick and a detached nail as the same thing, although a person can tick the box without anything having happened to the nail.

The route that never touches the nail



What the questionnaire measured is the box at the bottom. Two solid paths lead to it, and only one runs through the nail. The dashed arrow is the headline's claim, and nothing in the study tests it.

Two routes lead to a tick. On the first, the nail has detached, the person notices, and the box gets ticked. The second never reaches the nail. A person who starts a GLP-1 drug may have read the prescribing information, which lists hair loss among the side effects [6], and has been told to expect changes and has watched their body change for months. That person looks at their hands more closely than someone who has taken nothing. A lifted corner that a person not on the drug would not have noticed, or would not have called detachment, gets a tick.

That route can produce a large gap on its own, and the SAMSON trial shows how large. In it, 60 people who had quit statins because of side effects spent a year switching each month, in random order, between a statin, a placebo and no tablet, four months of each, rating their symptoms every day. With no tablet, the symptom score, on a scale of 0 to 100, averaged 8. On the placebo it averaged 15, and on the statin it averaged 16 [7]. Nine-tenths of what people reported on the statin they also reported on a sugar pill, so expectation, not the drug, produced most of it. The GLP-1 study has no placebo and no blinding, so nothing in it separates the two routes.

The drug also changes the body in ways everyone can see. In the companion study, about 288 of the 575 users reported unusual hair loss, against about 452 of the 1,329 not on the drug, which is 50 in 100 against 34 in 100 [2]. A person who is losing hair starts checking what else is going, and that closer attention runs along the lower route again.

The route through the nail that never touches the drug

The upper right of the graph shows the second way the study can mislead. About half the people on the drug said their nail problems began before they started it [2]. For them the nail route is real, and the drug is not on it. The release does not say how many of them are among the 39 in 100, or whether their earlier problem was detachment or some other nail complaint.

Onycholysis, the dermatologist's word for the box, has many causes: a knock, wet work,

psoriasis, a fungal infection, thyroid disease, some antibiotics [3]. Diabetes is also on DermNet's list of causes [3], and both groups include people with diabetes [2]. What differs between the groups is the drug and the watching, and the study cannot tell those two apart.

What adjustment can and cannot do

The researchers adjusted for skin conditions and nutritional deficiencies. The gap shrank from four times to two or three times [2]. An adjustment removes only the part of a gap carried by something that was measured, and the watching was not measured, so no adjustment can remove it. The number left after adjustment is therefore the drug's effect on nails plus the drug's effect on watching, and the study cannot say how the sum divides. The authors say as much when they caution that the study cannot establish that the drug caused the changes [2, 4]. Vice says so in the line under its headline and again near the end, but the headline calls nail detachment a side effect and the opening paragraph says the drugs may cause your fingernails to fall off [5].

The study that would settle it

Follow people from the first dose. Have a dermatologist examine the nails at intervals, on a fixed scale, without knowing who is on the drug. Then the measurement is the nail, and the lower route is cut. The authors say they plan to follow patients from the start of treatment with standardized dermatological examinations [2]. The release does not say whether the examiners will know who is on the drug. Until it is done, the evidence is a difference in what people report, and it cannot show that the drug detaches nails.

Two things to know while waiting. The study was supported by Ducray, a Pierre Fabre company that sells skin, hair and scalp care products [2]. That does not make the ticks wrong, but it is one more reason to want a study in which the nails are examined. And the advice to patients from one of the authors, Dr Bruno Halioua, is the sensible one: these changes are frequent, usually benign, and not a reason to stop an effective treatment on your own, and anyone who notices them should mention them to their doctor rather than stop the drug [2].

Three smaller faults

Relative reporting. Four times is a ratio, 39 in 100 divided by 9 in 100. Vice gave both numbers, which is the right way to report a ratio. It left out the second ratio in the release, two to three times after adjustment [2]. The next sentence says two-thirds of users had at least one nail disorder, with no comparison. The release has it: 66 in 100 users against 53 in 100 people not on the drug [2]. That is 13 more users in every 100 than non-users, on top of a complaint that more than half of the untreated already report.

The syndrome trap. The box is a label for a finding with many causes, not a disease with one. Two people who ticked it need not have the same thing wrong, and nothing in the box says which. The wider box, at least one nail disorder, was ticked by more than half of the people not

on the drug [2]. The headline treats every tick as one condition with one cause. Onycholysis is also usually painless, and DermNet describes it as the nail separating from the nail bed and leaving a white patch, not as the nail coming off [3], so fingernails falling off is Vice's phrase and the study does not use it.

The Bernoulli fallacy. The release says the gap stayed significant among people who lost weight and stayed at two to three times after adjustment [2]. Significant means that $P(\text{data} \mid \text{the drug does nothing to the ticks})$ is small, so data like these would be unlikely if the drug had no effect on the ticks. That is a statement about ticks rather than nails, and the test cannot see which route produced the gap. It does not tell you how likely it is that the drug detaches nails, which is the number a patient wants [1]. With 1,904 people answering and several ways to cut the data, some comparison is likely to clear the significance bar even if the drug does nothing to nails.

What the study shows

People on a GLP-1 drug tick the nail detachment box more often than people with the same conditions who are not on it, and that is all it shows, because nobody looked at a nail. About half the users had nail problems before they started the drug, and the drug has a route to the tick that never touches the nail, which the study cannot measure. The study that could measure it, with nails examined by a dermatologist, has not been done.

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