

# Ozempic's Dark Side: 45% Increased Risk of Suicidal Ideation

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## STORY AT-A-GLANCE

- › Studies show a 45% increased risk of suicidal ideation in patients taking semaglutide (Ozempic/Wegovy) compared to other medications, with even higher risks for those with pre-existing mental health conditions
- › Analysis of adverse event reports reveals higher rates of psychiatric issues, including depression, anxiety, and suicidal thoughts, associated with GLP-1 receptor agonist drugs used for weight loss
- › Semaglutide may affect brain chemistry by altering neurotransmitter systems and reward pathways, triggering or exacerbating depression and other mental health issues in some individuals
- › Ozempic and similar medications are also linked to severe gastrointestinal side effects, including stomach paralysis, pancreatitis, and bowel obstruction, as well as vision loss and changes in facial and body fat distribution
- › Natural alternatives to increase GLP-1 levels include promoting gut health with *Akkermansia muciniphila* bacteria

Semaglutide, marketed as Ozempic and Wegovy, has taken the weight loss world by storm. Originally developed to treat Type 2 diabetes, its dramatic weight loss effects quickly caught attention. However, a study analyzing World Health Organization data raises serious concerns about its safety.<sup>1</sup>

The research reveals a 45% increased risk of suicidal ideation in patients taking semaglutide compared to other medications.<sup>2</sup> This alarming finding suggests the drug's effects on mental health are more significant than previously thought.

While the weight loss results can seem miraculous, it's crucial to understand the many risks before considering this medication. This increased suicide risk warrants urgent investigation.

## **Alarming Spike in Suicide Risk Tied to Ozempic Use**

Individuals with pre-existing mental health conditions may be particularly vulnerable to semaglutide's psychological side effects. When the analysis focused on patients also taking antidepressants or anti-anxiety medications, the risk of suicidal ideation was even higher — a 150% to 300% increase in suicidal ideation was found among this group.<sup>3</sup>

"People with anxiety and depressive disorders may be at higher probability of reporting suicidal ideation when medicated with semaglutide," the researchers noted.<sup>4</sup> The drug's clinical trials often excluded patients with recent major depressive episodes or severe psychiatric disorders. As a result, the full extent of its impact on mental health in vulnerable populations remains unknown.

The popularity of semaglutide has led to widespread off-label use and shortages, and a significant number of reported adverse events involved possible off-label prescriptions. Social media has further fueled its popularity as a lifestyle drug, with many seeking it solely for weight loss.

This trend has even led to illegal trade in semaglutide pens, some of which are counterfeit, posing additional risks to unsuspecting users. "Considering the risk of suicidal ideation in people taking semaglutide off-label, authorities should consider issuing a warning to inform about this risk," the authors stated.<sup>5</sup>

## **Suicide: The Weight Loss Wonder Drug's Sinister Secret**

The featured study is not the first time Ozempic has raised red flags about suicide. The Icelandic Medicines Agency received multiple reports of suicidal thoughts and self-injury in people using semaglutide, prompting the European Medicines Agency (EMA) to begin reviewing the connection in July 2023.<sup>6</sup>

With more than 20 million people taking semaglutide and liraglutide, a GLP-1 agonist medication similar to semaglutide, annually, the implications could be devastating to public health.<sup>7</sup> "Previously, in the approval trials, 9 of the 3384 patients treated with liraglutide (0.27%) had reported suicidal ideation compared with 2 of 1941 patients allocated to the placebo group (0.10%)," researchers explained.<sup>8</sup>

Since then, the British Medicines and Healthcare Products Regulatory Agency and the U.S. Food and Drug Administration (FDA) have started similar investigations. The study authors explained, however, that the FDA appears to have known about the suicide risk for some time:<sup>9</sup>

*"Although EMA stated that no update to the product information is warranted, based on these findings, we believe that a precaution of use in patients with psychiatric disorders or psychological lability could be added in the semaglutide package insert. Remarkably, the FDA label of semaglutide for obesity warned to monitor for depression or suicidal thoughts."*

## **Wegovy Users at Risk of Suicidal Thoughts**

As Ozempic and similar GLP-1 receptor agonist drugs (GLP-1 RAs) continue to gain popularity for weight loss, a pharmacovigilance study examined 209,354 adverse event reports for these medications, finding a troubling association with suicidal thoughts and self-harm.<sup>10</sup>

The analysis revealed higher rates of psychiatric issues, particularly for liraglutide (Saxenda), semaglutide (Wegovy) and tirzepatide. So, while the drugs can lead to rapid weight loss, they may paradoxically increase suicide risk in some individuals.

Researchers wrote in *European Neuropsychopharmacology*:<sup>11</sup>

*"Notably, the U.S. prescribing information for liraglutide 3.0 mg already recommends vigilant monitoring for depression or suicidal thoughts, emphasizing discontinuation if these symptoms manifest. Similarly, a parallel cautionary note is present in the U.S. prescribing information for the semaglutide formulation Wegovy®, being administered at higher dosages for weight control than for T2DM [Type 2 diabetes]."*

GLP-1 receptors are present in brain regions involved in mood regulation. By altering neurotransmitter systems and reward pathways, these medications could trigger depression or exacerbate existing mental health conditions.

Further, they suggested, "One could wonder if the putative suicidal risk associated with GLP-1 RA may be tied to their impact on the hypothalamus, considering the established association between the hyperactivity of the hypothalamic-pituitary-adrenal axis and the occurrence of suicidal behaviors."<sup>12</sup>

## **Alarming Rates of Suicidal Thoughts with Newer GLP-1 Drugs**

Analysis of the European Pharmacovigilance Database also revealed concerning patterns regarding semaglutide and liraglutide.<sup>13</sup> Out of 41,236 adverse event reports for these drugs, 230 involved suicidal events – a small but significant number. Liraglutide and semaglutide accounted for the majority, with 88 and 84 cases respectively.

Notably, 68% of liraglutide reports and 13% of semaglutide reports were specifically linked to the higher-dose weight loss formulations. The data showed these newer drugs had two to four times higher odds of suicidal event reports compared to older GLP-1 drugs.

While the absolute numbers are low, this disproportionate reporting is troubling. Most cases involved women aged 18 to 64, with suicidal thoughts being most common. There were 14 fatal outcomes. If you're considering or using these medications, it's crucial to be aware of this significant risk.

The precise reasons for increased suicidal thoughts with GLP-1 drugs remain unclear, but their effects on neurotransmitter systems like serotonin may play a role. Additionally, rapid weight loss itself can trigger psychological changes, while underlying conditions like diabetes and obesity are also associated with higher suicide risk, complicating the picture.

European product information for these drugs doesn't yet include warnings about suicidal thoughts, underscoring the importance of real-world safety monitoring beyond clinical trials.

## **Weight Loss Drugs Linked to Severe Psychiatric Issues, Suicide Deaths**

Ozempic and similar GLP-1 receptor agonist medications continue to be hailed as game-changers for weight loss and diabetes management despite their suicide connection. An additional pharmacovigilance analysis of the EudraVigilance database revealed yet another troubling link between these drugs and psychiatric adverse events.<sup>14</sup>

The study examined reports for semaglutide, liraglutide, and tirzepatide from January 2021 to May 2023. Out of 31,444 total adverse event reports, 372 (1.18%) were related to psychiatric issues. While this percentage may seem small, the severity of these events is alarming.

Depression topped the list at 50.3% of psychiatric reports, followed by anxiety (38.7%) and suicidal ideation (19.6%). Most disturbingly, nine deaths were reported, with eight linked to liraglutide and one to semaglutide. These fatalities were primarily due to completed suicides, predominantly affecting men aged 18 to 64.

The study uncovered 102 adverse events related to suicide, ranging from ideation to completed acts. Semaglutide accounted for half of these events, while liraglutide was associated with 47%. Even the newer medication tirzepatide, despite fewer overall reports, showed a similar proportion of suicidal events.

Women reported 62% of these incidents, with nearly half occurring in the 18 to 64 age group. This data paints a stark picture of the potential mental health risks associated with these popular weight loss drugs, and the severity of the reported events demands serious attention and further investigation.

## **Exploring the Neurobehavioral Effects of Semaglutide**

Separate research has uncovered additional concerning connections between semaglutide and brain function.<sup>15</sup> GLP-1 receptors, the targets of drugs like Ozempic, are found in brain regions involved in emotion regulation. Animal studies have shown that GLP-1 agonists can initially induce anxiety, which may subside with continued use. However, the long-term impacts on human brain chemistry remain unclear.

Your brain's delicate balance of neurotransmitters could be affected by these medications, leading to mood changes. While some patients report improved mood and reduced depressive symptoms with weight loss, others experience the opposite effect. This variability highlights the complex interplay between semaglutide, brain function and individual neurochemistry.

In a case study of a 54-year-old woman, doctors suspected semaglutide was responsible for depressive symptoms, which disappeared when the drug was discontinued:<sup>16</sup>

*"After four weeks of treatment with semaglutide, the patient reported feeling more irritable and anxious than usual. She also experienced difficulty sleeping and a loss of interest in activities she previously enjoyed. These symptoms persisted over the next two weeks and began to interfere with her daily life. We suspected that her negative mood changes were consistent with major depressive syndrome.*

*... Given her worsening depressive symptoms, which temporally correlated with starting on semaglutide, we decided to discontinue semaglutide and switch her to a different medication. Over the next several weeks, the patient's mood*

*symptoms improved, and she reported feeling more like herself again."*

## **Understanding the Mechanism: How Ozempic Affects Your Mood**

Research published in *Frontiers in Psychiatry* has shed light on how semaglutide could influence your mood and mental health.<sup>17</sup> As mentioned, the drug's active ingredient targets GLP-1 receptors, which are found not only in your digestive system but also in key areas of your brain. These brain regions, including the lateral septum and hypothalamus, play crucial roles in regulating mood, reward, and food intake.

When semaglutide interacts with these receptors, it can alter the activity of neural pathways involved in these processes. Of particular interest is its effect on dopamine, a neurotransmitter closely linked to mood and reward. Studies suggest that GLP-1 receptor stimulation can increase dopamine transporter expression, reducing free dopamine levels in certain brain areas.

This alteration in dopamine signaling could contribute to changes in mood, motivation and even the experience of pleasure. If you're considering Ozempic, it's important to understand that its effects extend beyond appetite suppression and weight loss, impacting your brain chemistry in ways that scientists are still working to fully understand.

## **Real-World Experiences with Semaglutide-Associated Depression**

Two additional case studies highlight semaglutide's ability to trigger or exacerbate depression in some individuals.<sup>18</sup> In one case, a 54-year-old man with no prior history of mood disorders developed depressive symptoms about a month after starting semaglutide for weight loss. He experienced fatigue, decreased interest and motivation, and difficulty concentrating.

Importantly, his symptoms improved significantly within days of discontinuing the medication. In another case, a 40-year-old woman with a history of recurrent depression experienced a severe relapse about a month after adding semaglutide to her diabetes treatment. Her symptoms, including suicidal ideation, also improved after stopping the medication.<sup>19</sup>

## **Mental Health Risks and Suicidal Thoughts**

People using Ozempic and other GLP-1 RAs also reported severe psychiatric side effects in a study published in Brain Sciences.<sup>20</sup> One user warned, "Ozempic can cause suicidal thoughts ... Anxiety, Panic Attacks, Suicidal thoughts, etc. Not all people will experience this side effect, but please remember that if you do feel you are depressed, more anxious, etc., please check your medication."<sup>21</sup>

Many users also reported new or worsened anxiety after starting Ozempic. One individual described "crazy anxiety" after increasing their dose. Another experienced "severe anxiety, constant panic attacks, insomnia, hypoglycemia." Some users found their existing mental health conditions exacerbated, with reports of increased irritability, mood swings and even manic episodes.<sup>22</sup>

One user shared, "This IMMEDIATELY threw my hormones and emotions into a downward spiral. I'm infuriated that they don't list anxiety and depression as an official side effect yet it's all over the internet."<sup>23</sup>

Another user recounted, "Within a few weeks, I was so depressed, I wasn't leaving my room, or spending time with my kids. I did the bare minimum." Another stated, "Yep it gave me the worst anxiety and depression. I had no choice to get off it after 5 kg weight loss only. Life was not worth living at that point."<sup>24</sup>

## **Weight Loss with Ozempic Could Wreck Your Health**

Along with suicidal ideation, Ozempic and similar medications are also linked to a number of other side effects, including serious gastrointestinal issues. Research from the University of British Columbia revealed that GLP-1 agonists are associated with an increased risk of stomach paralysis, pancreatitis, and bowel obstruction.<sup>25</sup> A study of 25,617 people also found use of GLP-1 agonists increases the rate of intestinal obstruction by 3.5-fold.<sup>26</sup>

In other cases, those who have taken the injections experience life-changing side effects making them wish they never touched the drugs. Joanne Knight had been taking Ozempic for about two years when she became unable to swallow food.<sup>27</sup> The reason? Her stomach was full of food. Violent vomiting and constant nausea followed, along with a diagnosis of severe gastroparesis, or stomach paralysis.

Meanwhile, reports underscore the drug's effects on facial fat – when too much fat is lost from your face, it can lead to a gaunt appearance, dubbed "**Ozempic face**." An article in *Plastic and Reconstructive Surgery – Global Open*<sup>28</sup> highlights that similar changes can also occur elsewhere in your body, including leading to deflated breasts and backside, conditions now known as "**Ozempic breast**" and "Ozempic butt."

## **Ozempic Linked to Vision Loss**

A Danish-Norwegian cohort study has revealed another reason to reconsider Ozempic – it's linked to a rare eye condition known as non-arteritic anterior ischemic optic neuropathy (NAION).<sup>29</sup>

NAION is a serious condition that leads to sudden, painless vision loss in one eye. It occurs when blood flow to the optic nerve is disrupted, causing damage that is often irreversible. While NAION is uncommon, its severe impact on vision makes any increase in risk a matter of concern for those using medications like Ozempic.

The study, which analyzed data from national health registries in Denmark and Norway, compared new users of Ozempic with those taking sodium-glucose co-transporter 2 inhibitors (SGLT-2is), another class of diabetes medication. Researchers aimed to

determine whether there was an association between Ozempic use and the incidence of NAION. They included 44,517 Ozempic users in Denmark and 16,860 in Norway, monitoring them for up to five years.

Findings from the study indicated that individuals using Ozempic had a higher risk of developing NAION compared to those on SGLT-2is. Specifically, the pooled hazard ratio was 2.81, meaning there was almost a threefold increase in risk. However, the absolute risk, which refers to the actual number of additional cases per 10,000 person-years, was relatively low – about 1.41 extra cases among Ozempic users.

That being said, the study's results were consistent across various analyses, reinforcing the reliability of the association. The findings also back up an earlier Harvard University study, which also linked Ozempic with NAION. This matched cohort study evaluated 16,827 patients and revealed a pronounced association between semaglutide prescriptions and the onset of NAION.<sup>30</sup>

In this study, patients with Type 2 diabetes and those who were overweight or obese were closely monitored. Individuals prescribed semaglutide exhibited a hazard ratio of 4.28 for developing NAION in the diabetes cohort and an even higher hazard ratio of 7.64 in the overweight or obese group. These figures suggest that semaglutide users were over four to seven times more likely to experience NAION compared to those on other treatments.

The temporal association observed – where the risk of NAION peaked within the first year of semaglutide initiation – adds weight to the argument that the medication plays a direct role in the development of this serious eye condition. Combining insights from both studies paints a concerning picture – there appears to be a consistent link between semaglutide use and an increased risk of NAION that cannot be ignored.

## **A Natural Alternative to Ozempic**

Instead of turning to GLP-1 RAs, you can safely increase your GLP-1 levels by increasing *Akkermansia muciniphila* in your gut. *Akkermansia* is an effective alternative to GLP-1 RAs like Ozempic, as these beneficial bacteria produce a protein that stimulates GLP-1 production. Research published in *Nature Microbiology* found that *A. muciniphila* increased thermogenesis and GLP-1 secretion in mice fed a high-fat diet.<sup>31</sup>

*Akkermansia*, which ideally should make up 3% to 5% of your gut microbiome, is crucial for intestinal health. However, many people lack sufficient levels due to impaired mitochondrial function and oxygen leakage in the gut.

One of *Akkermansia*'s key roles is producing short-chain fatty acids (SCFAs) like butyrate. These fats fuel your colonocytes, which create mucin, a protective gel-like substance that coats your gut lining. They also help eliminate oxygen from your colon to allow the beneficial bacteria to thrive. Mucin shields intestinal cells from damage, harmful microbes and digestive irritants.

Mucin boosts your immune system too, as it contains antibodies and antimicrobial peptides that help fight infections. It also traps pathogens for elimination through digestion. However, *Akkermansia*'s role in naturally reducing hunger and regulating blood sugar by boosting GLP-1 makes it particularly intriguing for those interested in weight loss.

## **Akkermansia Boosts Your Body's GLP-1 Gut Hormone**

While drugs like Ozempic are synthetic versions of GLP-1, a healthy gut microbiome rich in *Akkermansia* naturally boosts your body's GLP-1. This hormone, produced by L cells in your colon, is a key player in regulating your appetite and blood sugar.

As a central coordinator, GLP-1 is intricately involved in directing your body to release insulin, delaying stomach emptying and informing your brain that you're full. These factors naturally reduce hunger, which is why drug companies have created synthetic GLP-1 in the form of Ozempic and Wegovy.

But, unlike synthetic GLP-1 drugs, which are cost-prohibitive and dangerous, you naturally elevate your GLP-1 levels by increasing the presence of Akkermansia in your gut. In my interview with Dr. Colleen Cutcliffe, a molecular biology scientist and the CEO and co-founder of Pendulum, a company that creates probiotics, she explains:

*"So, what's been found is that if you are low or missing Akkermansia, your body is not naturally producing as much GLP-1 as it's supposed to be. By giving people back Akkermansia, you now have these physiological benefits of reducing A1C and lowering blood glucose spikes.*

*To be clear, the natural GLP-1 you produce is different from the drug. The drug is a mimic. It's an analog. It looks like GLP-1. It gets injected into the bloodstream directly, which means that rather than the natural spike after you eat [followed by a decline], the [drug] is keeping those levels really high all the time.*

*So, this signaling of 'we got to metabolize sugar in the blood and we're full, we just ate' is going on constantly. That's why people experience these incredible, amazing overnight effects because that's how those drugs are working. But if you actually have the right microbes, you generate your body's natural GLP-1 and get back into this natural cycle."*

## **Why Mitochondrial Function Is Key to Successful Akkermansia Supplementation**

When your cellular energy decreases, your body struggles to effectively eliminate oxygen from your colon. This has serious consequences for the normal inhabitants of your colon, which can be killed when oxygen levels rise. This is why Akkermansia supplementation alone is not a complete solution.

It is crucial to commit to a program designed to decrease mitochondrial toxins. This is because reduced mitochondrial function needs to be compensated for to ensure oxygen can be removed from the colon. If you fail to address this issue, even the best

Akkermansia supplement with the most effective delivery system will have limited benefits. The newly introduced Akkermansia bacteria will likely be killed soon after arriving in your oxygen-rich colon environment.

This is one of the primary reasons why it's vital to eliminate all seed oils from your diet for at least six months before starting an Akkermansia supplementation program. This preparatory period allows your body to recover mitochondrial function and create a more hospitable environment in your colon for the beneficial bacteria.

By taking these steps, you can maximize the benefits of Akkermansia supplementation and support overall gut health. Remember, addressing the root cause – mitochondrial function and colon oxygenation – is essential for the success of any gut health intervention.

## **Probiotic Potency Explained: CFU, AFU, and TFU**

When evaluating the potency of probiotics, three units of measurement often come into discussion: Colony Forming Units (CFU), Active Fluorescent Units (AFU), and Total Fluorescent Units (TFU). Understanding the distinction between these units is crucial for both consumers and healthcare professionals to assess the effectiveness and quality of probiotic supplements accurately.

- **Colony Forming Units (CFU)** – This is the most widely recognized and utilized metric for quantifying the number of viable bacteria or fungal cells in a probiotic product. One CFU represents a single microorganism capable of dividing and forming a colony under specific laboratory conditions. This measure is important because the therapeutic benefits of probiotics are directly related to the number of live microorganisms that reach your gut.

Probiotic manufacturers typically list CFU counts on product labels, indicating the number of live organisms per serving. Higher CFU counts are often marketed as more potent, though the optimal CFU dosage can vary depending on the specific strains and the health outcomes targeted.

It's important to note that not all CFUs are equal; the efficacy of a probiotic also depends on the strains used and their ability to survive the acidic environment of the stomach to colonize the intestines.

- **Active Fluorescent Units (AFU)** – This unit is a less conventional and not widely standardized measure in the context of probiotics. While CFU shows the number of bacteria that are alive, AFU refers to the total number of bacteria present, both dead and alive. It is primarily a unit used to measure enzymatic activity.

For instance, AFU could be used to evaluate the activity levels of specific enzymes produced by probiotics, which contribute to their health benefits, such as breaking down lactose or producing vitamins. In some specialized applications, AFU is also used to assess the metabolic activity or functional potency of probiotic strains beyond mere viability.

However, because AFU is not a standardized metric in the probiotic industry, its use can lead to confusion and inconsistency in product labeling and efficacy claims.

- **Total Fluorescent Units (TFU)** – This unit measures the total bacterial mass including both live and dead cells through fluorescent labeling, and is typically used only for pasteurized products.

The primary difference between CFU, AFU, and TFU lies in what they measure: CFU quantifies the number of live microorganisms; AFU assesses the functional activity of those microorganisms; and TFU measures the total bacterial mass.

While CFU provides a clear indicator of the potential for colonization and survival of probiotics in the gut, AFU could offer additional insights into the functional capabilities of the probiotic strains.

However, due to the lack of standardization and widespread recognition of AFU in the probiotic market, CFU remains the gold standard for assessing probiotic potency. Consumers are generally advised to focus on CFU counts and the specific strains

included in a probiotic supplement to ensure they are selecting a product with proven efficacy for their health needs.

## **Akkermansia Clinical Trials: Dosages and Applications**

Clinical trials published in 2024 investigating Akkermansia have yielded promising results,<sup>32</sup> highlighting its potential across a range of health conditions, including infectious disease,<sup>33</sup> immune-related disease,<sup>34</sup> liver fibrosis,<sup>35</sup> stress management,<sup>36</sup> intestinal-related diseases,<sup>37</sup> metabolic health,<sup>38</sup> and brain function.<sup>39</sup>

These studies, which include both animal and human trials, have primarily used therapeutic doses ranging from 100 million to 10 billion CFU per day. The dosage selected often corresponds to the specific health condition being targeted, ensuring optimal therapeutic effects.

Again, for metabolic conditions such as obesity, diabetes, and metabolic syndrome, doses of 10 billion CFU per day have been commonly administered. This elevated dosage aims to significantly influence gut microbiota composition and enhance metabolic functions, leading to improvements in insulin sensitivity, glucose metabolism, and overall metabolic health.

Conversely, lower doses of 1 billion CFU per day, have proven effective for gut-specific conditions like leaky gut syndrome, as well as liver health, by promoting intestinal and immune homeostasis, improving intestinal barrier function and alleviating inflammation.<sup>40</sup>

This lower dose is sufficient to leverage Akkermansia's anti-inflammatory properties and support gut barrier integrity without the need for higher bacterial concentrations. The studies have shown that even at these reduced levels, Akkermansia can effectively reduce intestinal inflammation and enhance the mucosal lining, contributing to improved gastrointestinal health.

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