

# **Blockbuster Skinny Pills Can Paralyze Your Stomach**

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#### STORY AT-A-GLANCE

- > Semaglutide, sold under brand names Ozempic and Wegovy, can lead to debilitating side effects, including delayed gastric emptying, also known as gastroparesis or stomach paralysis
- > Gastroparesis slows or stops the movement of food from your stomach to your small intestine; this results in feeling full longer, which is one mechanism by which semaglutide results in weight loss
- > Gastroparesis can also lead to debilitating nausea, vomiting and, in severe cases, dehydration and malnutrition
- > Due to the delayed stomach emptying that occurs with semaglutide, the American Society of Anesthesiologists (ASA) released a warning that it could increase the risk of regurgitation and aspiration of food during general anesthesia
- > Other risks of these trendy weight loss drugs include intestinal obstruction, pancreatic cancer, thyroid tumors, gallbladder disease and suicidal behavior

The demand for medications promising easy weight loss has skyrocketed, with prescriptions rising 2,082% from 2019 to 2022. Semaglutide, more popularly known as Ozempic, is leading the pack, with the hashtag #Ozempic having received 1.2 billion views on TikTok² as of July 2023 — to give just some indication of its popularity.

Semaglutide is sold under the name Ozempic as a diabetes drug and, in a higher dose, under the name Wegovy as a weight loss drug. It touts weight loss of 14.9% among

adults with obesity,<sup>3</sup> but it comes at a steep price. Not only does Wegovy cost more than \$1,000 a month,<sup>4</sup> it can also lead to debilitating side effects, including stomach paralysis.

### 'I Wish I Never Touched It'

Joanie Knight took Ozempic for about two years, when she became unable to swallow food. The reason? Her stomach was full of food. Violent vomiting and constant nausea followed, along with a diagnosis of severe gastroparesis, or delayed gastric emptying.<sup>5</sup>

"I wish I never touched it. I wish I'd never heard of it in my life," Knight told CNN. "This medicine made my life hell. So much hell. It has cost me money. It cost me a lot of stress; it cost me days and nights and trips with my family. It's cost me a lot, and it's not worth it. The price is too high."

Gastroparesis slows or stops the movement of food from your stomach to your small intestine. This results in feeling full longer, which is one mechanism by which semaglutide results in weight loss. However, gastroparesis also leads to nausea, vomiting and, in severe cases, dehydration and malnutrition. Diabetes is the most commonly known cause of gastroparesis, due to nerve damage in the stomach.<sup>7</sup>

However, semaglutide and similar drugs are designed to delay gastric emptying, and nausea and vomiting — common symptoms of gastroparesis — are reported in many who take them. Even Novo Nordisk, which manufactures Ozempic and Wegovy, told CNN these side effects are listed on the label:8

"Gastrointestinal (GI) events are well-known side effects of the GLP-1 [glucagon-like peptide 1] class. For semaglutide, the majority of GI side effects are mild to moderate in severity and of short duration. GLP-1's are known to cause a delay in gastric emptying, as noted in the label of each of our GLP-1 RA medications. Symptoms of delayed gastric emptying, nausea and vomiting are listed as side effects."

# **GLP-1s Dramatically Slow Digestion**

Semaglutide is a glucagon-like peptide 1 receptor agonists (GLP-1RAs). As a peptide hormone, GLP-1 is, among other things, part of a group of incretin hormones, which are released when you eat to regulate insulin, along with many other functions.<sup>9</sup>

Along with affecting insulin, GLP-1 may influence the nervous system, leading to an appetite-reducing response. However, one of their mechanisms is, in fact, delayed gastric emptying — an effect many who take it aren't aware of. In 2021, Mayo Clinic researchers wrote that "their [GLP-1 agonists and analogs] effects are mediated, at least in part, by retardation of gastric emptying" — the hallmark of gastroparesis.

Meanwhile, in Wegovy clinical trials, 44% of those taking the drug experienced nausea while 24% had vomiting and 20% had abdominal pain,<sup>11</sup> all common symptoms of gastroparesis. Mayo Clinic researchers also looked at the effects of another GLP-1 receptor agonist, called liraglutide, in adults with obesity.

They found the drug's weight loss effects were associated with "delay in gastric emptying of solids," 12 and the longer food sat in the stomach, the greater the weight loss effects became. The delay in digestion was dramatic.

While food typically left the stomach in just four minutes among those in the placebo group, it took an average of 70 minutes in those who took liraglutide. For some, the delay was even more — up to 151 minutes. While this decreased somewhat by 16 weeks, with food leaving their stomachs in about 30 minutes, this was still much longer than the seven minutes in the placebo group.<sup>13</sup>

# **WeightWatchers Plans to Promote Obesity Drugs**

WeightWatchers is moving into the obesity drug market via its acquisition of telehealth platform Sequence. In a press release, WeightWatchers stated, "Sequence seamlessly integrates the patient and clinician experience for ongoing, clinical care and medication

management while providing high-touch support in navigating the insurance approval process."14

In other words, WeightWatchers members will be able to book a virtual consultation with a clinician and get a prescription for Wegovy or another GLP-1. In fact, Sequence's program is entirely based around weight loss medications. One of their FAQs is "What if my clinician determines a prescription is not right for me?" <sup>15</sup>

The answer is you'll take an intake quiz and have an initial consultation, but, "Your program only begins if your clinician determines that you're a good fit." In other words, you're virtually guaranteed to get a prescription if you sign up.

Skepticism is wise in this case, as the number of significant side effects tied to the drugs continues to increase. On social media, many members were taken aback by the move, saying it "rubbed them the wrong way." 16 As Rolling Stone reported:17

"The move seems to be at odds with the longstanding tenets of the program. WeightWatchers, which was first started in 1963 and instituted in strip malls across America, has long been touted by its supporters (including Oprah Winfrey herself, who owns stake in the company) as an easier way to lose weight, while avoiding the stigma and temptation of crash diets and weight loss pills.

... Some Weight Watchers users feeling stuck or plateaued in their weight loss have welcomed the change, while a majority in online chat rooms on sites like Facebook and Reddit seem to have more questions than decisions."

# Case Reports Highlight Semaglutide-Induced Stomach Paralysis

Gastroparesis among those taking semaglutide isn't unheard of. Case studies of two women who suffered from medication-induced gastroparesis were published in the Journal of Investigative Medicine in 2021.<sup>18</sup>

The first involved a 52-year-old woman who took semaglutide for one month before symptoms, including abdominal pain, bloating and nausea, began. Testing revealed delayed gastric emptying, which resolved after she stopped taking the drug. The second case involved a 57-year-old woman suffering from abdominal bloating, nausea and vomiting for a year.

She had started taking dulaglutide, brand name Trulicity, another GLP-1 receptor agonist, 15 months prior. Testing revealed she had severe delayed gastric emptying, which gradually resolved when the drug was stopped.

However, this isn't always the case. In Knight's case and another described by CNN, symptoms did not get better even after they stopped taking the drug. Knight ended up having stomach bypass surgery due to the severe gastroparesis, which left her able to "eat enough that I'm not malnourished." 19

## **Anesthesiologists Warn Not to Take Ozempic Before Surgery**

Due to the delayed stomach emptying that occurs with semaglutide, the American Society of Anesthesiologists (ASA) released a warning for those taking the drugs before elective surgery.<sup>20</sup>

They suggest stopping this and other GLP-1 receptor agonists before the procedure, as they could increase the risk of complications associated with anesthesia — namely that you could regurgitate food that's still sitting in your stomach, even if you've fasted appropriately.

As a result, they recommend not taking the medications for a day or a week prior to surgery, and possibly delaying the procedure if symptoms such as nausea, vomiting, abdominal pain or bloating are present. In a news release, Dr. Michael W. Champeau, ASA president, explained:<sup>21</sup>

"While there is currently a lack of scientific data on how GLP-1 receptor agonists affect patients having surgery and interact with anesthesia, we've received anecdotal reports that the delay in stomach emptying could be

associated with an increased risk of regurgitation and aspiration of food into the airways and lungs during general anesthesia and deep sedation.

These complications can be serious, so we are providing guidance on when GLP-1 agonists should be stopped in advance of an elective procedure."

The likelihood of those using semaglutide having a full stomach is so high that the ASA suggests using ultrasound to evaluate the stomach contents prior to surgery if a patient hasn't withheld the drug, stating:<sup>22</sup>

"If the stomach is empty, proceed as usual. If the stomach is full or if the gastric ultrasound is inconclusive or not possible, consider delaying the procedure or proceed using full stomach precautions. Discuss the potential risk of regurgitation and aspiration of gastric contents with the proceduralist or surgeon and the patient."

# Intestinal Obstruction Risk Rises 3.5-Fold on Semaglutide

These trendy weight loss medications cause other significant risks as well and may even cause a potentially fatal intestinal obstruction. Diabetic patients who use the drugs have a 4.5 times higher risk of intestinal obstruction than those using other medications. A study of 25,617 people also found use of GLP-1Ras increases the rate of intestinal obstruction by 3.5-fold.<sup>23</sup>

The drugs were also found to increase the length and weight of the small intestine in animal studies, while in humans they may increase intestinal length and villus height; villi are the hairlike projections inside the small intestine that help absorb nutrients. Writing in Acta Pharmaceutica Sinica B, researchers explained how this could seriously affect intestinal function, increasing obstruction risk:<sup>24</sup>

"Because GLP-1RAs could cause continuous increases in the intestinal length and villus height, the small intestine may become as inelastic and fibrotic as a loose spring, leading to long-term upper intestinal obstruction ..." To date, clinical trials haven't revealed such changes in the human gut, likely because it's difficult to measure small intestine length. Further, the most common symptom of these changes is constipation, which can be attributed to many causes — not to mention, the team noted, studies typically aren't long enough to reveal intestinal obstruction risks:<sup>25</sup>

"The risk of chronic intestinal obstruction in humans cumulates over time, with the highest occurrence appearing 1.6 years following GLP-1RA treatment. However, clinical trials on GLP-1RAs usually do not last for more than a year ..."

# **Kidney, Cancer Risks Are Also Concerning**

The long-term risks of semaglutide are unknown, but already the drug carries a black box warning because rodent studies found semaglutide causes thyroid C-cell tumors "at clinically relevant exposures." Pancreatic cancer is another concern. One patient in the Sustain 5 trial developed metastatic pancreatic carcinoma about 65 days post-treatment. <sup>27</sup>

A pharmacovigilance study using the FDA Adverse Events Reporting System also looked into "increasing data on the potential risk of pancreatic carcinoma associated" with GLP-1Ras, including semaglutide, finding a clear association.<sup>28</sup>

"Based on this pharmacovigilance study, GLP-1RAs, except albiglutide, are associated with pancreatic carcinoma," researchers noted, adding, "Based on the bibliometric investigation, cAMP/protein-kinase, Ca2+ channel, endoplasmic-reticulum stress, and oxidative stress are potential pathogenesis of pancreatic carcinoma resulting from GLP-1RAs."<sup>29</sup>

The kidneys also seem to be negatively affected, with two case studies showing acute kidney injury in people taking semaglutide. Both patients had chronic kidney disease as a result of diabetes and "experienced rapid worsening of kidney function and increased proteinuria after being prescribed the GLP-1 receptor agonist semaglutide."<sup>30</sup> Wegovy's prescribing information also has a sizeable list of warnings and precautions, including for:<sup>31</sup>

Acute pancreatitis	Acute gallbladder disease
Hypoglycemia	Acute kidney injury
Hypersensitivity reactions, including anaphylactic reactions and angioedema	Diabetic retinopathy complications
Heart rate increase	Suicidal behavior and ideation

## **Better Options for Weight Loss**

It is my strong belief that we will never see the "miracle cure" drugs for weight loss in our lifetime. Using drugs to lose weight could lead to permanent, debilitating health problems — and if we do, it's likely you'll regain the weight if you ever stop taking them.

Fortunately, there are solutions that we know today that address the fundamental reason why most people gain weight, which is insulin resistance secondary to mitochondrial dysfunction from excess reductive stress. Excess linoleic acid (LA) from seed oils is the primary cause of mitochondrial reductive stress.

Participants in one study regained two-thirds of their prior weight loss, and most of the changes in cardiometabolic variables also reverted back to pretreatment levels one year after stopping semaglutide.<sup>32</sup> Fortunately, there are better ways to lose weight that don't put your health at risk. Top strategies include:

Reducing your intake of seed oils while increasing your intake of healthy fats —
 Consuming too much linoleic acid is the primary factor driving the overweight and
 obesity epidemics. LA is a type of omega-6 fat found in seed oils like soybean,
 cottonseed, sunflower, rapeseed (canola), corn and safflower.<sup>33</sup>

Consider cutting LA down to below 5 grams per day, which is close to what our ancestors used to consume before chronic health conditions, including obesity, became widespread.

Ideally the actual amount though is better defined as a percentage of daily calories. LA should be less than 2% of your daily calories. I was able to get my percentage down to 0.8%. You don't need expensive lab tests, as all you need to do is carefully enter your food data into Cronometer and it will tell you your percent.

- Avoiding nearly all ultraprocessed foods, fast foods and restaurant foods —
  Virtually all of them contain seed oils. The easiest way to do this is to prepare the majority of your food at home so you know what you are eating.
- Using time restricted eating (TRE) Our ancient ancestors did not have access to food 24/7, so our genetics are optimized to having food at variable intervals, not every few hours. When you eat every few hours for months, years or decades, never missing a meal, your body forgets how to burn fat as a fuel.

Most people who practice TRE limit the time they consume food to eight to 10 hours or less on most days of each week. In one study, adults with obesity who used an eight-hour eating window lost more weight, and had better improvements in diastolic blood pressure and mood, than those who used a 12-hour or more eating window.<sup>34</sup>

Although TRE is an amazing tool initially for most people, once you regain insulin sensitivity you want to increase your food window to 10 to 12 hours.

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  Sep 27

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