

## 7 Toxic Additives Lurking in Supplements (That we will never use!)

The supplement industry is riddled with hidden dangers. While the FDA does not regulate dietary supplements in the same way as pharmaceuticals, it does allow over **3,000 additives** to be used in these products. Many of these ingredients are unnecessary fillers, flow agents, and preservatives that pose risks to human health. **Titanium dioxide**, for example, was recently banned in the European Union due to concerns over its potential to damage DNA, yet it remains in many U.S. supplements. As awareness grows, more consumers are demanding cleaner, safer formulas. Here are seven of the most ubiquitous toxic additives you should watch out for:

### 1. Silicon Dioxide

Silicon dioxide is an **anti-caking agent** added to supplements to keep powders from clumping. It is produced by synthesizing silica from **quartz or sand**. While it is generally recognized as safe (GRAS) by the FDA, concerns exist over the potential for **nanoparticle contamination**, which may lead to inflammation and **cellular damage** in the body. Some studies indicate that prolonged exposure to nanoparticles can disrupt **gut health** and immune function.

**Known side effects:** 1. Respiratory effects<sup>1</sup> 2. Gastrointestinal effects<sup>2</sup> 3. Neurological effects<sup>3</sup> 4. Eye irritation<sup>4</sup>

References: <https://archive.epa.gov/pesticides/reregistration/web/pdf/4081fact.pdf><sup>1</sup>

<https://medicine.healthsci.mcmaster><sup>2</sup>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC8675786/hippocampus><sup>3</sup>

[nj.gov/health](https://nj.gov/health)<sup>4</sup>

### 2. Citric Acid

Citric acid—though naturally occurring in citrus fruits—is often commercially made through **fermentation using Aspergillus niger, a mold strain**. Pfizer started to produce citric acid from *Aspergillus niger* (mold) in 1919, and this method is still used

today across the world, particularly in China, where the majority of citric acid is manufactured. Some individuals experience **allergic reactions, increased inflammation, and digestive distress**, especially from these synthetic versions, which make up the lion's share of citric acid used in food/supplement products.

**Side effects:** 1. Skin Irritation<sup>6</sup> 2. Eye pain<sup>6</sup> 3. Damage to tooth enamel<sup>6</sup> 4. Upset stomach<sup>6</sup> 5. Joint/Muscle pain<sup>6</sup> 6. Shortness of breath<sup>6</sup> 7. Increased Inflammation<sup>6</sup>

References: <https://pmc.ncbi.nlm.nih.gov/articles/PMC6097542/><sup>6</sup>

### 3. Croscarmellose Sodium

Croscarmellose sodium is a **super-disintegrant and synthetic polymer** used to help tablets break apart quickly for faster absorption. It is synthesized through chemical modification of **wood pulp or cotton**. Its highly processed nature raises concerns. Some studies link it to **gut irritation, bloating, and potential long-term effects on gut microbiota**.

**Side Effects:** 1. Allergic reactions<sup>7</sup> 2. Upset stomach<sup>8</sup> 3. Shortness of breath/cough<sup>7</sup> 4. Skin irritation<sup>8</sup>

References: <https://remedysnutrition.com/blogs/news/18289407-additives-to-avoid><sup>7</sup>

<https://www.parchem.com/siteimages/attachment/croscarmellosesodium><sup>8</sup>

### 4. Maltodextrin

Maltodextrin is a **processed carbohydrate** added to supplements as a **filler, thickener, or preservative**. The majority is derived from **genetically modified corn**. It has a **higher glycemic index than table sugar**, meaning it **spikes blood sugar levels**, which can be problematic for people with **diabetes or insulin resistance**. Additionally, maltodextrin has been shown to alter **gut bacteria**, potentially leading to digestive issues and **weakened immune function**.

**Side Effects:** 1. Blood sugar spikes<sup>9</sup> 2. Bloating, gas, constipation<sup>9</sup> 3. Weight gain<sup>9</sup> 4. Sticks to teeth and can cause bacterial growth<sup>9</sup>

References: [www.medicalnewstoday.com/articles/322426#safety-and-side-effects](http://www.medicalnewstoday.com/articles/322426#safety-and-side-effects)<sup>9</sup>

### 5. Soy Lecithin

Soy lecithin is an **emulsifier** used to blend ingredients and improve texture. It is extracted from **soybean oil**, typically from **genetically modified (GMO) crops**, and

may contain **residual solvents as well as pesticides** from processing. Soy lecithin has been linked to **hormonal disruption** due to its potential estrogenic effects. Furthermore, individuals with **soy allergies or sensitivities** may experience **inflammatory reactions**.

**Side Effects:** 1. Diarrhea, nausea, stomach pain<sup>10</sup> 2. Allergic reactions<sup>10</sup> 3. DNA altering<sup>10</sup> 4. Hormonal Disruption<sup>10</sup>

References: [www.tandfonline.com/doi/full/10.1080/1547691X.2020.1804492](http://www.tandfonline.com/doi/full/10.1080/1547691X.2020.1804492)<sup>10</sup>

## 6. Microcrystalline Cellulose

Microcrystalline cellulose is a **bulking agent and texturizer** derived from **wood pulp**. While considered safe, excessive consumption has been associated with **digestive issues, bloating, and interference with nutrient absorption**. Additionally, because it is chemically processed, concerns exist about its impact on **gut health and microbiome balance**.

**Side Effects:** 1. Interferes with nutrient absorption<sup>11</sup> 2. Skin rash<sup>12</sup> 3. Abdominal pain, constipation<sup>12</sup> 4. Difficulty breathing, lung inflammation<sup>13</sup>

References:

<https://www.sciencedirect.com/science/article/abs/pii/S0144861722007421><sup>11</sup>

<https://www.wyndly.com/blogs/learn/cellulose-allergy><sup>12</sup>

<https://www.sciencedirect.com/science/article/abs/pii/S1569904808002206><sup>13</sup>

## 7. Magnesium Stearate, Vegetable Stearate, & Stearic Acid

These compounds are used as **lubricants** to prevent supplement ingredients from sticking to manufacturing equipment. What is very misleading here with magnesium stearate is that it resembles a harmless nutrient but it is more of a food chemical, because of the processing. The fine white powder is greasy to the touch. While often marketed as harmless, some research suggests it may **inhibit nutrient absorption** by forming a biofilm in the intestines. Additionally, vegetable stearates often contain **harmful residues** from hydrogenated (high-heat) oils and processing. Companies do not disclaim which vegetable oils are being used, whether they are GMO or otherwise.

**Known side effects:** 1. Laxative effect<sup>14</sup> 2. Bowel irritation<sup>14</sup> 3. Allergic reactions<sup>14</sup> 4. Immune System irritation<sup>14</sup>

References: <https://draxe.com/nutrition/magnesium-stearate/><sup>14</sup>

## The Misleading Nature of GRAS

The **Generally Recognized as Safe (GRAS)** designation is often misunderstood by consumers. While the FDA allows manufacturers to self-certify ingredients as GRAS, this process **does not require independent, third-party testing or long-term safety studies**. Many additives that are deemed GRAS today were evaluated decades ago using outdated research methods. Additionally, the **cumulative effect of consuming multiple GRAS additives daily has not been adequately studied**. This loophole enables companies to introduce new substances into the market **without comprehensive safety evaluations**, potentially exposing consumers to **harmful long-term effects**.

## Our Quality & Purity Pledge to You

At **Physician's Strength**, we have never allowed any of these toxic additives into our supplements in over **30 years of operation**—and we never will. We know that **every ingredient matters**, and we will never compromise when it comes to your health. Your **trust is our top priority**, and we will never betray it. That's why you can have **peace of mind with every purchase**. Our **#1 rule** is simple: **"If it doesn't have a health benefit, you won't find it in our formulas."**

## Final Thoughts

Very few supplement brands prioritize **high-quality, clean ingredients**, while most continue using these questionable additives. As the **demand for transparency grows**, some companies are reformulating to remove **titanium dioxide, artificial dyes, and other controversial ingredients**. To avoid toxic additives, always **read labels carefully** and only choose brands that emphasize **pure, research-backed formulations**, like us! We invite you to perform a simple Google search on these common additives and their side effects to verify the accuracy of this information for yourself. Your health is too important to leave in the hands of hidden fillers and unnecessary chemicals.