

Masks Now Found to Contain 2B Carcinogen

STORY AT-A-GLANCE

- In a study of 12 face masks, every mask contained titanium dioxide (TiO₂) particles in at least one layer, at levels that “exceeded the acceptable exposure level”
- The International Agency for Research on Cancer classifies titanium dioxide as a Group 2B carcinogen, which means it’s “possibly carcinogenic to humans” by inhalation
- A meta-analysis called for a rethinking of nano-TiO₂ safety, citing numerous toxic effects in humans and aquatic animals
- Masks take both a physical and psychological toll; the journal *Pediatrics* highlighted the emotional burden felt by parents, clinicians and patients due to wearing masks in pediatric cancer wards
- YouTube has updated its policies about what constitutes “misinformation” and now allows you to say masks don’t work

The face masks that were supposed to protect your health may turn out to be detrimental to it, as increasing evidence points to toxins within their fibers. Titanium dioxide is one such toxin, one that’s particularly troubling in face masks because it’s a suspected human carcinogen when inhaled.¹

Not only have adults been unwittingly exposed to this likely cancer-causing substance due to widespread mask mandates put in place during the pandemic, but so too have children, whose bodies are especially vulnerable to toxic influences. Coupled with evidence suggesting that mask mandates and use did not lower the spread of COVID-19,² forced mask mandates become all the more atrocious.

Group 2B Carcinogen Detected in Masks

The International Agency for Research on Cancer (IARC) classifies titanium dioxide as a Group 2B carcinogen, which means it’s “possibly carcinogenic to humans” by inhalation.³ Prior to the pandemic, this occurred primarily in occupational settings during the production of titanium dioxide powders or in the manufacture of products containing the substance.

There’s also been some concern about spray-on (aerosolized) sunscreens, hair color sprays and cosmetic powders containing microscopic particles of titanium dioxide that could be inhaled.

Specifically, the state of California includes titanium dioxide in the form of airborne particles measuring 10 micrometers or less on its Proposition 65 list, stating, “Titanium dioxide (airborne, unbound particles of respirable size) is on the Proposition 65 list because it can cause cancer. Exposure to titanium dioxide may increase the risk of cancer.”⁴

Despite the fact that titanium dioxide’s carcinogenicity when inhaled is well-known, the compound is commonly used in face mask textiles to improve stability to ultraviolet light and for use as a white colorant and matting agent.

Nanoparticle technology is also being used in face masks, and nanofibers containing titanium dioxide have been used to make antimicrobial filters, often in combination with silver and graphene, while titanium dioxide nanoparticle coatings may also be applied to cotton fabric to enhance antibacterial properties.⁵

Not only have adverse effects been reported in animal studies involving inhalation of titanium dioxide particles,⁶ but a team of researchers warned of “possible future consequences caused by a poorly regulated use of nanotechnology in textiles,” expanding on potential human health and environmental effects:⁷

“Although originally classified as biologically inert, there is a growing body of evidence on the toxicity of TiO₂ [titanium dioxide] to humans and non-target organisms ... Artificial sweat was also used to test the concentration of the silver and TiO₂ released from fabrics. The release rate was found to depend on the concentration of nanomaterials in the fabric and the pH of sweat.”

A meta-analysis published in the journal *Small*, which focuses on science at the nano- and microscale, also called for a rethinking of nano-TiO₂ safety, citing numerous toxic effects in humans and aquatic animals:⁸

“Genotoxicity, damage to membranes, inflammation and oxidative stress emerge as the main mechanisms of nano-TiO₂ toxicity. Furthermore, nano-TiO₂ can bind with free radicals and signal molecules, and interfere with the biochemical reactions on plasmalemma [cell membrane].

At the higher organizational level, nano-TiO₂ toxicity is manifested as the negative effects on fitness-related organismal traits including feeding, reproduction and immunity in aquatic organisms.”

TiO₂ in Masks Exceeds 'Acceptable' Exposure Level

In a study published in Scientific Reports, researchers tested the amount of titanium — used as a proxy for TiO₂ particles — in 12 face masks meant to be worn by the public, including single-use disposable varieties as well as reusable masks. The masks were made of various materials, including synthetic fibers like polyester and natural fibers, such as cotton.⁹

Every mask contained titanium dioxide particles in at least one layer, although they weren't found in cotton fibers or meltblown nonwoven fabrics. Generally, the amount of titanium dioxide particles in nonwoven fabrics was lower — by a factor of 10 — than in polyester and polyamide fibers. Further, all of the masks except one contained TiO₂ nanoparticles, which present an elevated inhalation hazard.

Nanosized particles are typically described as being less than 100 nanometers (nm). The median size of the titanium dioxide particles in the masks ranged from 89 to 184 nm.¹⁰ Based on a model in which face masks are “worn intensively,” the study found that exposure to titanium dioxide “systematically exceeded the acceptable exposure level to TiO₂ by inhalation (3.6 µg).”

On Twitter, Federico Andres Lois shared, “The best (lowest contamination) has more than 5 times the acceptable limit. Ohh and by the way, you are forcing your kid to breathing through it.”¹¹ This, the researchers concluded, calls for in-depth research to avoid adverse effects:¹²

“[T]hese results urge for in depth research of (nano)technology applications in textiles to avoid possible future consequences caused by a poorly regulated use and to implement regulatory standards phasing out or limiting the amount of TiO₂ particles, following the safe-by-design principle.”

How Masks Make You Sick

The potential consequences of breathing in carcinogenic particles from face masks worn during the COVID-19 pandemic won't be known for years, but red flags have been raised from the beginning that face mask usage has consequences, with no meaningful benefit.

Dr. Zacharias Fögen conducted a study to find out whether mandatory mask use influenced the COVID-19 case fatality rate in Kansas from August 1 to October 15, 2020.¹³ He chose the state of Kansas because, while it issued a mask mandate, counties were allowed to either opt in or out of it.

His analysis revealed that counties with a mask mandate had significantly higher case fatality rates than counties without a mask mandate. “These findings suggest that mask use might pose a yet unknown threat to the user instead of protecting them, making mask mandates a debatable epidemiologic intervention,” he concluded.

A 2021 report focused on health, safety and well-being of face mask usage¹⁵ further noted potential permanent physical damage to the lungs caused by fibrosis from inhalation of fibrous nanoparticles.

“There are real and significant dangers of respiratory infection, oral health deterioration and of lung injury, such as pneumothorax, owing to moisture build-up and also exposure to potentially harmful levels of an asphyxiant gas (carbon dioxide [CO₂]) which can cause serious injury to health,” the authors explained.¹⁶

Masks Take an Extreme Psychological Toll

The physical repercussions are only one aspect to consider, as the psychological consequences of mask mandates are also severe. The journal *Pediatrics* recently highlighted the burden felt by parents, clinicians and patients in pediatric cancer wards when they were forced to wear masks.¹⁷

Hidden by face masks, clinicians felt powerless to display empathy and compassion during the most difficult conversations with their patients and their families. Wrote one clinician, who had to deliver devastating health news about the child of a friend:¹⁸

“My mask covered my expression. Perhaps the only way she could have known just how devastated I was to learn of this news was by the tears welling up in my eyes. My natural response was to wrap my arms around my friend and tell her everything would be okay. ‘I will help you, I will fix her, I will do everything in my power to make this go away.’

But how do I show you when my words are muffled by the mask? How can I softly share my words of condolence when I am struggling to catch enough air myself through the 3 layers of fabric? How does anyone break this kind of awful news with personal protective gear creating a barrier between doctor and patient?”

The children were also affected, as they couldn’t see their parents’ faces during a time when they needed them most. Wrote one parent:¹⁹

“When a policy change mandated that parents be masked 24/7 while in the hospital, my child was furious. She would rip the mask off my face and, if it was a

paper mask, would pull off the strings so it could not be worn again. 'I need to see my mommy' she told me, along with 'I need kisses to make me feel better and you can't kiss me with a mask.'"

A 2021 psychology report²⁰ also stated that masks are likely to be causing psychological harm to children and interfering with development.²¹ "The extent of psychological harm to young people is unknown," the report stated, "due to the unique nature of the 'social experiment' currently underway in schools, and in wider society."²²

YouTube Now Lets You Say Masks Don't Work

You may recall that countless public figures have been deplatformed by multiple social media and other online outlets for speaking out against the narrative, including the misguided notion that masks were useful for reducing COVID-19 cases.²³ Indeed, it wasn't long ago that even physicians who spoke out against mandatory masks were hunted down like a modern-day witch hunt.²⁴

Now, it seems, YouTube has changed its tune, as it has updated its policies about what constitutes "misinformation." Stating that "masks do not play a role in preventing the contraction or transmission of COVID-19," or that "wearing a mask is dangerous or causes negative physical health effects," was previously a violation of their policy,²⁵ but this verbiage has since been removed from its examples of misinformation.

Other mask-related statements that have been removed from YouTube's definition of misinformation include:²⁶

- Claims that wearing a mask causes oxygen levels to drop to dangerous levels
- Claims that masks cause lung cancer or brain damage
- Claims that wearing a mask gives you COVID-19

Curiously, while YouTube no longer classifies "claims that COVID-19 vaccines are not effective in preventing the spread of COVID-19 as misinformation,"²⁷ "claims about COVID-19 vaccinations that contradict expert consensus from local health authorities or WHO" are still off limits.²⁸

It's also against YouTube's guidelines to post "content alleging that vaccines cause chronic side effects" or "content claiming that vaccines do not reduce transmission or contraction of disease,"²⁹ — the latter being a blatant contradiction to their COVID-19 vaccine terms.

So, while YouTube now allows you to say masks don't work, you still can't contradict WHO on vaccines. Little by little, however, the truth will emerge, as is already occurring with face masks and their carcinogenic contents.

Sources and References

- ^{1, 12} [Scientific Reports volume 12, Article number: 2529 \(2022\), Abstract](#)
- ² [MedRxiv May 25, 2021, Discussion](#)
- ³ [Radiol Oncol. 2011 Dec; 45\(4\): 227–247](#)
- ⁴ [CA.gov, Proposition 65](#)
- ⁵ [Scientific Reports volume 12, Article number: 2529 \(2022\), Intro](#)
- ⁶ [Toxicological Sciences, Volume 77, Issue 2, February 2004, Pages 347–357](#)
- ⁷ [NanoToday April 2021, Volume 37, 101077](#)
- ⁸ [Small August 6, 2020](#)
- ^{9, 10} [Scientific Reports volume 12, Article number: 2529 \(2022\)](#)
- ¹¹ [Twitter, Federico Andres Lois August 26, 2022](#)
- ¹³ [Medicine February 18, 2022](#)
- ¹⁴ [Medicine February 18, 2022, 4.1 Hypothesis](#)
- ^{15, 16} [Health, Safety and Wellbeing Report in respect of Civil Proceedings April 9, 2021](#)
- ^{17, 18, 19} [Pediatrics \(2021\) 148 \(5\): e2021051696](#)
- ^{20, 22} [Psychology Report in respect of Civil Proceedings April 9, 2021](#)
- ²¹ [Express April 11, 2021](#)
- ²³ [The Lancet May 25, 2022](#)
- ²⁴ [WCIA August 18, 2021](#)
- ²⁵ [YouTube, The Pulse August 31, 2022, 4:01](#)
- ²⁶ [YouTube, The Pulse August 31, 2022, 6:34](#)
- ²⁷ [YouTube, The Pulse August 31, 2022, 7:35](#)
- ²⁸ [YouTube Help, What this policy means for you](#)
- ²⁹ [YouTube, The Pulse August 31, 2022, 9:29](#)