

# YOUTUBE'S ANOREXIA ALGORITHM:

HOW YOUTUBE RECOMMENDS EATING DISORDERS VIDEOS TO YOUNG GIRLS



The Center for Countering Digital Hate works to stop the spread of online hate and disinformation through innovative research, public campaigns and policy advocacy.

Our mission is to protect human rights and civil liberties online.

Social media platforms have changed the way we communicate, build and maintain relationships, set social standards, and negotiate and assert our society's values. In the process, they have become safe spaces for the spread of hate, conspiracy theories and disinformation.

Social media companies erode basic human rights and civil liberties by enabling the spread of online hate and disinformation.

At CCDH, we have developed a deep understanding of the online harm landscape, showing how easily hate actors and disinformation spreaders exploit the digital platforms and search engines that promote and profit from their content.

We are fighting for better online spaces that promote truth, democracy, and are safe for all. Our goal is to increase the economic and reputational costs for the platforms that facilitate the spread of hate and disinformation.

If you appreciate this report, you can donate to CCDH at counterhate.com/donate. In the United States, Center for Countering Digital Hate Inc is a 501(c)(3) charity. In the United Kingdom, Center for Countering Digital Hate Ltd is a nonprofit company limited by guarantee.

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# PLEASE READ

This report contains content on the following themes which may be distressing to readers:

- Eating disorders
- <u>Suicide</u>
- <u>Self-harm</u>
- Mental health
- Body shaming

If you are affected by the content of this report, you may find the following resources helpful.

#### US eating disorder support and advice

National Alliance for Eating Disorders: To reach a helpline call 1 (866) 662–1235 from Monday to Friday, 9am–7pm ET. Their directory of practitioners and treatment centers can be found <u>here</u>, which can also be accessed using an app.

## UK eating disorder support and advice

<u>BEAT</u> — To reach a helpline use <u>this link</u> to find phone numbers for England, Scotland, Wales and Northern Ireland, 365 days a year, 9am – midnight during the week and 4pm – midnight on weekends.

#### Australian eating disorder support and advice

**<u>Butterfly</u>** — For their helpline call 1800 33 4673, available from 8am – midnight seven days a week.

#### Canadian eating disorder support and advice

**NEDIC** — For their helpline call 1866–NEDIC-20 from 9am – 9pm Monday to Thursday, 9am – 5pm on Friday, and 12–5pm on Saturdays and Sundays. For web chat support use <u>this link</u> at the same times above.

#### New Zealand eating disorder support and advice

EDANZ - For their helpline call 0800 2 EDANZ or (09) 5222 679

This report examines YouTube's role in recommending eating disorder and mental health content to vulnerable users. Our findings should not be interpreted as criticism of those YouTube users who use the platform to discuss their own mental health.

# **1. INTRODUCTION**

I have long been honored to call Ian Russell and Kristin Bride my friends, even if I wish my work at CCDH hadn't brought us together. Ian and Kristen, like far too many parents around the world, share the trauma of having lost a child to the dangers of social media.

Seven years ago, lan's daughter Molly – just fourteen at the time – took her own life after being exposed to an algorithmically-accelerated spiral of online content that normalized and encouraged her to self-harm. Kristin's son Carson, who was 16, took his life after he was cyberbullied on Snapchat.



Hearing Ian and Kristen's stories of grief, I cannot

understand how any social media company would not feel compelled to immediately pull the emergency break and fix their platforms so no other child falls victim to the same fate.

While I thought I understood Ian and Kristen's pain before, now that I have children, I know I was only beginning to fathom the heartache they endure every day.

I have experienced many so-called "important" moments – leaving my family to go to college, graduating, my first day at work, my marriage, turning various milestone birthdays – but none compares to the moment we welcomed our first child into the world.

The overwhelming rush of responsibility, and truthfully, the terror of being unprepared. Am I ready to be a father? Am I ready to parent a child in our complicated, ever-changing world? I whispered to my little one in the delivery room that being a father is now my life's purpose.

So, when I speak with parents who have been through the unthinkable, whose agony could have been prevented if technology companies had taken responsibility for potential harm generated by their platforms, it reinforces to me the urgency of our mission. We must all make this promise collectively to future generations: to protect them. It is the cornerstone of civilization.

This new report is a devastating indictment of the behavior of social media executives, regulators, lawmakers, advertisers, and others who have failed to abide by this collective promise by allowing eating disorder and self-harm content to be pumped into the eyeballs of our children for profit. It is a clear, unchallengeable case for immediate change.

Nine out of ten teens in the United States use YouTube, a fifth of them "almost constantly."<sup>1</sup> It is used by far more young people than TikTok or Snapchat. At the same time, around the world, we are experiencing a crisis in mental health for young people. The number of children developing eating disorders has increased significantly in several countries, and there's evidence that social media is contributing to the problem.<sup>2</sup> Between the years 2000 and 2018, the global prevalence of eating disorders doubled.<sup>3</sup> In 2021, the US Centers for Disease Control found that 1 in 3 teen girls seriously considered attempting suicide, up 60% from the previous decade.<sup>4</sup>

YouTube has acknowledged the problem in the past and claims to try to avoid contributing to it, but our research shows they have fallen far short. CCDH put it to the test: we examined the recommendations that a teen girl would receive when watching an eating disorder video for the first time. All that YouTube knew about our test accounts was that this was the account of a 13-year-old girl with no prior viewing history. Its algorithm would determine what this girl would see across 1,000 video recommendations. What we found will chill you to the bone – and shows just how at risk all children who use these platforms are of deadly consequences.

If a child approached a health professional, a teacher, or even a peer at school and asked about extreme dieting or expressed signs of clinical body dysmorphia, and their response was to recommend to them an 'anorexia boot camp diet', you would never allow your child around them again. You'd warn everyone you know about their behavior.

Well, that's precisely what YouTube did – pushed this user towards harmful, destructive, dangerous, self-harm-encouraging content.

One in three recommendations were for harmful eating disorder videos that could deepen an existing condition or anxieties about body image.

Two in three were for eating disorder or weight loss content.

And then, as if encouraging eating disorders weren't enough, YouTube sometimes pushed users to watch videos about self-harm or suicide.

Beyond merely pushing related content, YouTube's algorithm has a deep, sick sense of a teen's vulnerable psychologies, and in its infinite corporate wisdom, YouTube encourages users to watch this content – all in search of ever greater profits.

Next to these videos – videos about how to starve yourself, or even how to harm yourself – YouTube ran ads from prominent multinational corporations, making money from them. YouTube is placing ads for Nike, T-Mobile and Hello Fresh next to this harmful content.

Of course, when we reported these horrific videos to the platform, YouTube failed to remove or age-restrict them 4 out of 5 times. And sickeningly, this is legal.

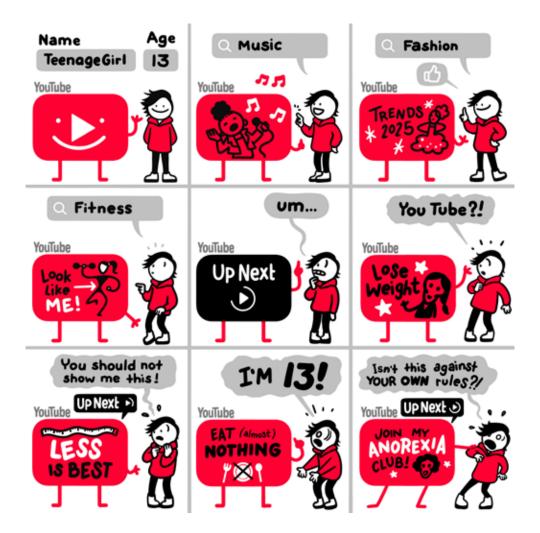
Most parents will be staggered to learn that not only is this lawful, but that YouTube is explicitly protected from liability for this behavior by U.S. law – specifically Section 230 of the Communications Decency Act 1996.

YouTube itself has made promises to parents that our data proves were, in reality, worthless. They claim to remove harmful eating disorder content – they don't. They claim to age-restrict this content – they don't. They claim to make "responsible" video recommendations – they do not.<sup>5</sup>

As a parent, and as a human being of the world, this scares me. I promised to keep my children safe, but how can I be sure of keeping that promise when they have access to YouTube? How can I be sure that algorithmically accelerated, monetized disordered eating and self-harm content will not encourage an outcome that no parent wants to even contemplate? We must hold YouTube to account. This report gives us all the evidence we need to take action.

It starts with demanding more from social media platforms, but also from the advertisers who contribute most of their revenues and the legislators who claim they have our backs but have sat back and done nothing while intersecting crises in mental health, suicide and eating disorders devastate the lives of our children.

Imran Ahmed, CEO, Center for Countering Digital Hate



Imagine you're a 13-year-old girl who just created a YouTube account. You watch a video promoting eating disorders. It's the first time you've encountered such content.

What does YouTube's algorithm do? It starts recommending more harmful videos, sometimes even content about self-harm and suicide.

CCDH's disturbing new findings show that YouTube's algorithm is pushing young girls to watch videos glorifying skeletal bodies and promoting extreme diets that could lead to fatal consequences.

YouTube's algorithm is sending teenage girls into a dangerous rabbit hole that could have dangerous consequences.

YouTube must fix its algorithm and stop hurting teens.

# **2. EXECUTIVE SUMMARY**

# THIS STUDY EXAMINES YOUTUBE'S RECOMMENDATIONS TO TEENAGE GIRLS

- For this study, our researchers repeated the experiment of loading the video recommendations shown to a fictional 13-year-old user who watches a video about eating disorders for the first time.<sup>6</sup>
- We analyzed 1,000 recommendations that were collected by simulating the experience of multiple 13-year-old users who watch eating disorder content.

# YOUTUBE'S RECOMMENDATIONS PUSH TEENS INTO A DANGEROUS RABBIT HOLE

- Instead of diverting 13-year-olds away from eating disorder content, YouTube pushes them further into a potentially dangerous rabbit hole.
- Our analysis of 1,000 YouTube video recommendations to 13-year-olds shows:
  - 1 in 3 (344) were for harmful eating disorder content<sup>7</sup>
  - 2 in 3 (638) were related to eating disorders or weight loss<sup>8</sup>
  - 1 in 20 (50) involved self-harm or suicide content<sup>9</sup>

# HARMFUL VIDEOS WERE RECOMMENDED TO TEENS DESPITE BREACHING YOUTUBE'S OWN POLICIES

- Harmful eating disorder videos recommended to 13-year-olds in our analysis breached YouTube's policies which forbid some types of eating disorder content.
- Examples of videos that researchers judged to breach YouTubes policies:
  - ABC "Anorexia Boot Camp" Diet of 0-500 calories for 30 days<sup>10</sup>
  - "Thinspiration" videos presenting skeletal bodies as inspiring<sup>11</sup>
  - "What I Eat in a Day" videos showing extreme calorie restriction<sup>12</sup>
- Harmful eating disorder videos accrued an average of over 388,000 views each.<sup>13</sup>

# YOUTUBE PROFITS FROM ADS PLACED NEXT TO HARMFUL EATING DISORDER CONTENT

 Videos containing harmful eating disorder content carried ads from major brands such as Grammarly, T-Mobile, HelloFresh, and Nike.<sup>14</sup>

# YOUTUBE FAILS TO ACT ON 81% OF HARMFUL EATING DISORDER CONTENT

- We flagged 100 harmful eating disorder videos to measure YouTube's response.
- YouTube failed to remove, age restrict or label 81 of the 100 videos we flagged.<sup>15</sup>

# ADVERTISERS AND LEGISLATORS MUST MAKE SURE YOUTUBE FIXES ITS ALGORITHM

- YouTube must fix its algorithms to protect teens from harmful content.
- Advertisers must ensure their budgets are not funding harmful content.
- US policymakers must reform Section 230 to hold platforms to account.



# **3. YOUTUBE CLAIMS TO REMOVE HARMFUL EATING DISORDER CONTENT AND TO RECOMMEND RESPONSIBLY**

YouTube claims to remove or age-restrict eating disorder content that could be harmful.<sup>16</sup> However, the platform's algorithm remains largely opaque, making it difficult to verify these policy claims. This highlights the importance of studies like ours to better understand its impact. Our report shows that YouTube is not enforcing their policies effectively.

## YouTube claims that it removes harmful eating disorder content

YouTube updated its policies on eating disorders in April 2023, expanding the set of eating disorder content that is prohibited from the platform.<sup>17</sup> The platform now claims to remove the content, which we will refer to in this report as "harmful eating disorder content":

- "Content promoting or glorifying...eating disorders"<sup>18</sup>
- "Instructions on how to... engage in eating disorders"<sup>19</sup>
- "Content about eating disorders that feature imitable behavior" including, "disordered eating behaviors, such as purging after eating or severely restricting calories" and "weight-based bullying in the context of eating disorders"<sup>20</sup>

#### YouTube claims it age-restricts eating disorder content

YouTube's updated policy also introduced age restriction on videos relating to eating disorders.<sup>21</sup> According to the policy, certain videos about eating disorders that contain "educational, documentary, scientific or artistic context," or that discuss "disordered eating behaviors in the context of recovery," will be made unavailable to viewers under 18.<sup>22</sup>

#### YouTube claims it promotes "responsible" and "authoritative" recommendations

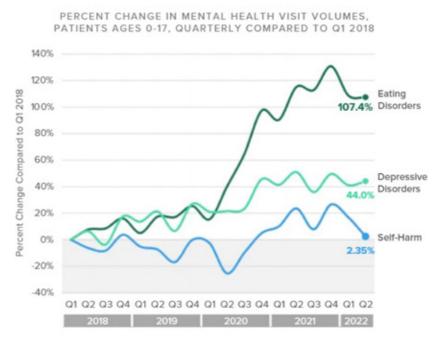
In addition to specific measures on eating disorders, YouTube also claims that its recommendations are "responsible," and that the platform takes the "additional step" of recommending "authoritative" videos on themes such as medical and scientific information, with more authoritative videos receiving greater prominence in recommendations.<sup>23</sup>

#### YouTube recognizes that weight loss content can harm teens

YouTube claims it safeguards teen users against repeat recommendations for "content that compares physical features and [...] idealizes specific fitness levels or body weights". YouTube acknowledges that for some content a single video may be harmless but "could be problematic for some teens if viewed in repetition". Due to this YouTube claims to have limited repeat recommendations of such videos in the US since 2023.<sup>24</sup>

# Online content is linked to worsened severity of eating disorders in young people

Eating disorders have increased significantly in children over the past 20 years in several countries.<sup>25</sup> There is evidence that social media content is contributing to the severity of eating disorders, leading to calls for platforms to act.<sup>26</sup>



The chart on the left was produced by Trilliant Health and published in their 2023 health trends report. It shows that mental health visits for eating disorders by people under 17 doubled between 2018–2022. <sup>27</sup>

Beat, a charity supporting those affected by eating disorders, has said that "Socalled pro-ana and pro-mia content is widespread on social media and can be very harmful for people suffering from an eating disorder ... research shows that such content helps perpetuate the illnesses for people who are already suffering."<sup>28</sup>

# **4. WE ANALYZED 1,000 VIDEOS RECOMMENDED TO TEEN GIRLS**

To investigate whether YouTube's algorithm promotes eating disorder content, researchers studied 1,000 videos that the platform recommended to teens.

#### How we tested YouTube's recommendations for teen girls

We established a new YouTube account, informing the platform that the account belonged to a US-based girl aged 13, a demographic that is vulnerable to eating disorders and one that enables us to test YouTube's protections for its younger users.<sup>29</sup>

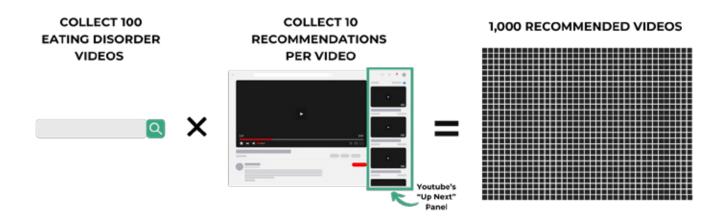
Using videos likely to be seen by a teen girl after searching for popular eating disorder keywords identified in prior research, researchers carried 100 simulations on our test account and recorded the top ten recommendations in the "Up Next" panel displayed next to the videos.<sup>30</sup> The account's history and cookies were cleared between simulations to ensure they had no bearing on recommendations.

Using this method, each simulation reflects the recommendations that could be served to a teen girl encountering eating disorder content on YouTube for the first time.

# How we categorized recommended videos

We then analyzed the 1,000 video recommendations captured in our simulations, placing them into one of the following four categories:

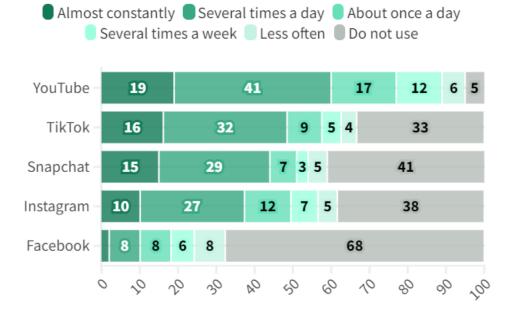
- Harmful eating disorder content breaching YouTube's policies
- Other eating disorder content
- Weight loss content
- Unrelated content



#### Why we studied YouTube

The study focuses on YouTube, which according to the Pew Research Center is the most popular social media site amongst teens in the US, ahead of TikTok, with around three quarters of all teens saying they use the platform at least once a day.<sup>31</sup>

# % of US teens who say they visit each of the following sites...



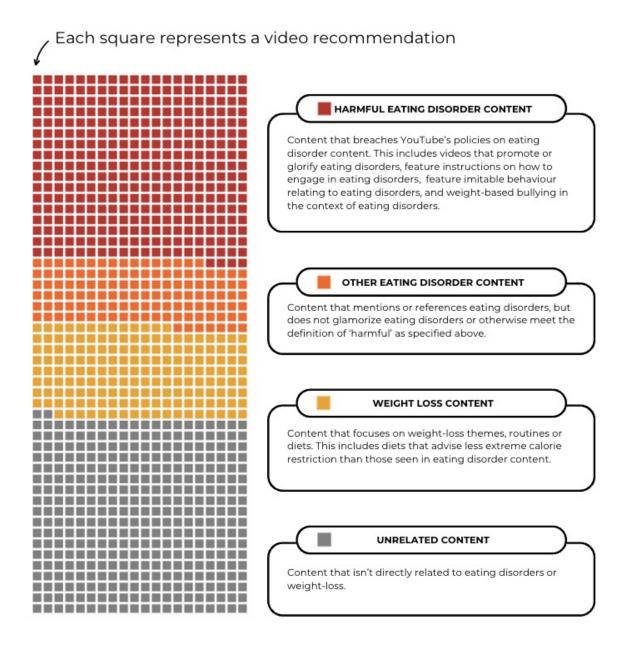
Source: Pew Research Center

# 5. YOUTUBE RECOMMENDS EATING DISORDER VIDEOS TO TEEN GIRLS

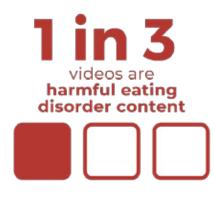
We analyzed 1,000 video recommendations that were collected by repeatedly simulating the experience of a 13-year-old teenager who watches an eating disorder video.

Our experiment shows that instead of diverting potentially vulnerable 13-year-old users away from the theme of eating disorders, YouTube's recommendation system channels them further down into what could be a dangerous rabbit hole of content.

We classified the 1,000 recommended videos into four categories, shown below. Examples of each category can be found in appendices.



# 1 in 3 recommendations were for eating disorder content



Our analysis shows that 344 out of 1,000 of the videos recommended by YouTube were for harmful eating disorder content. All these videos were judged by researchers to meet YouTube's own definition of harmful eating disorder content as laid out in its policies.

This shows that YouTube is not only failing to remove harmful eating disorder content as it claims, but is frequently recommending this content to users as young as 13.

# Almost 2 in 3 recommendations were for eating disorder or weight loss content

Almost 2 in 3 videos are about eating disorders or weight loss Our analysis shows that 638 out of 1,000 of the videos recommended to our 13-year-old test account were for eating disorder or weight loss content, amounting to most recommendations.

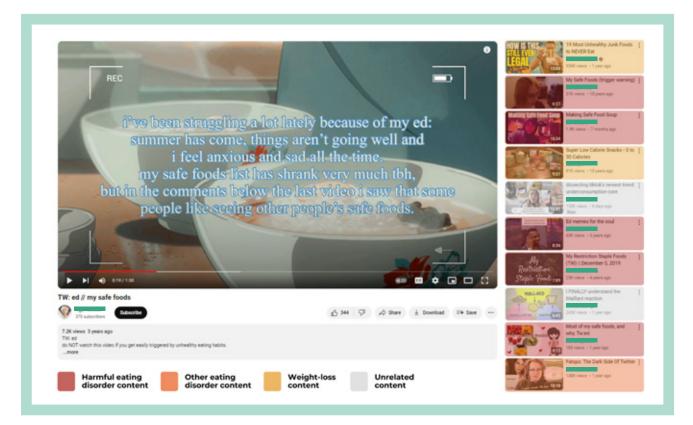
YouTube acknowledges that content about weight and fitness can be harmful to teens.<sup>32</sup> This content could contribute to further interest in disordered eating and negatively impact the body image of young users.<sup>33</sup>

# Harmful eating disorder videos had an average of 388k views

An average of 388k views per harmful eating disorder video Harmful eating disorder videos in our study had an average of 388,096 views per video. This underscores the vast reach of such content on YouTube. That visibility is driven by the platform's algorithm.

# How recommendations look to a teen user

This is one of the hundred simulations we carried out, representing a 13-year-old girl encountering eating disorder content on YouTube for the first time. The video is titled "TW: Ed// My safe foods" containing both the abbreviation for eating disorder (ED) and a popular eating disorder term "safe foods" in the title. The recommendations on the right have been color-coded to show how many are for eating disorder and weight loss content.



# **Case study: Comments encouraging disordered eating**

The following screenshots show examples of comment sections from recommended videos in our dataset in which users exchange tips for engaging in eating disorders and share harmful dieting advice, often receiving validation and misguided reassurance from others.

	2 years ago			
I guess	i need to starve myself again			
<b>1</b> 384	CD Reply			
~ 22	2 replies			
-	2 years ago			
I typed	up thinspo and this came up			
£ 94	TP Reply			
~ 61	oplies			
(e	2 years ago			
when yo	ou try and make yourself look like theses girls but ur mom forces you to eat			
B 217	CD Reply			
V 61	eplies			

In these comments under a tiktok compilation titled "TikToks That Will Make You Jealous" users comment that things like "I guess I need to starve myself again" and "when you try to make yourself look like these girls but ur mom forces you to eat". These comments both received hundreds of likes from other users.



In these comments under a video titled "TW e d II What I eat In Five days (high res)" a user says they have a question for "anyone who has and ED like me (who isn't trying to recover)" and asks if they up their diet from 300 to 400 calories a day will they gain weight? The video creator responds "I don't think so"



In this comment section on a video titled "TW ED || Days of Res and Binges :/" users exchange tips for managing an eating disorder diet including using a scale to count calories in an apple and lowering your "salt intake."

# 6. EATING DISORDER TRENDS RECOMMENDED TO TEENS BY YOUTUBE

This section contains examples of eating disorder content recommended to our test account, broken down into various trends. Further examples can be found in the appendices.

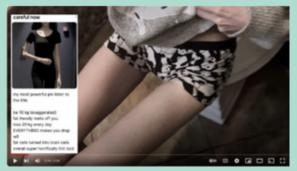
# N M \* RACE

**ABC Diet: Anorexia Boot Camp Diet** 

ABC Diet – Day 8 | 4K Views

**The ABC Diet**, or Anorexia Boot Camp diet, is a 30-day food regime which imposes daily calorie limits of 0-500 calories. It is intended to induce anorexia. The ABC diet can lead to malnutrition, muscle loss, hair loss, a weakened immune system, and potential long-term damage to vital organs.<sup>34</sup> This video is from a girl documenting herself undertaking the diet day by day.

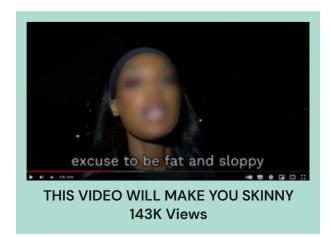
# Thinspo: Skeletal imagery and manifesting thinness



Careful Now | 624K Views

**Thinspo** videos feature emaciated bodies to inspire thinness. This video shows skeletal legs and provides a link to a Padlet (pictured on the left) which claims to manifest a "super horrifically thin bod" for viewers.

# Meanspo: Bullying to motivate weight loss



Meanspo is a genre of content meant to encourage weight loss through mean inspiration. In this video a woman rants, saying "You don't got no goddamn eating disorder, that's a lie you told yourself to explain why you're so goddamn fat".

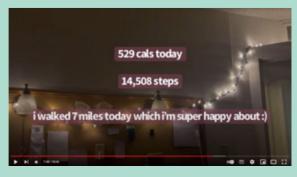
# Fatspo: Fat shaming to inspire weight loss



Fat Acceptance Cringe #58 - Painful TikTok Cringe Compilation |151K Views

**Fatspo** videos are intended to inspire weight loss by invoking disgust at fat bodies. In this video, clips of fat content creators have been editing into a mocking montage. In some cases, the people featured are talking about their own struggles with eating disorders, violating YouTube's policy on weight-based bullying in the context of eating disorders.

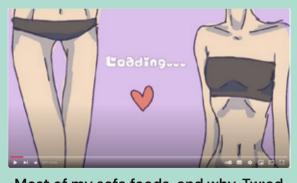
# What I Eat In A Day: daily disordered eating habits



Tw ed what i eat in 3 days ed restriction + exercise | 88K Views

**Eating Disorder What I Eat In A Day videos** often labeled "ED WIEIAD" showcase the daily eating habits of those with eating disorders, often depicting extreme calorie restriction, violating YouTube's policy on imitable behavior. Diets of less 1200 calories per day may lead to malnutrition and should not be undertaken except under doctor supervision.<sup>35</sup>

# Safe Food: Hauls of low or no calorie foods



Most of my safe foods, and why. Tw:ed | 233 Views

**Safe food** videos detail foods the person with the eating disorders can eat without the fear of gaining weight. Safe foods are generally low or no calorie items. In this video the user talks through their safe food, while using imagery of an emaciated body.<sup>36</sup> These videos are against YouTube's policy because they feature "imitable behavior" and offer ideas for eating disorder diets.<sup>37</sup>



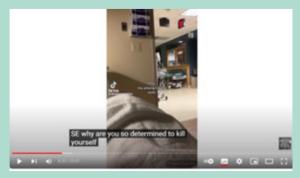
# 7. YOUTUBE RECOMMENDS SELF-HARM VIDEOS TO TEEN GIRLS

We analyzed 1,000 video recommendations that were collected by repeatedly simulating the experience of a 13-year-old teenager who watches an eating disorder video. Out of the 1,000 recommendations 5% contained content about suicide or self-harm.

This shows that YouTube's algorithm is promoting other forms of dangerous content to children after they display an interest in eating disorders, exposing them to a wider range of harmful content. It also shows that YouTube is failing to prevent its recommendation system from promoting content about suicide and self-harm to users as young as 13-years-old.

This is especially concerning given the links between eating disorders and other mental health conditions, with between 50% and 75% of people who suffer from an eating disorder also meeting the criteria for depression, making it likely that users who display an interest in eating disorder content are vulnerable to other mental health issues.<sup>38</sup>

# Examples of self-harm content recommended to 13-year-old account



Vent TikTok To Express My Feelings:( Part 66 | 48K Views

This video with the words "POV- the attempt didn't work" appeared amongst the recommendations to our test account.



Eating Disorder Awareness TikToks 872K Views

This video, which states "when your bl@des there for you more than our friends are" appeared amongst the recommendations to our test account.

# 8. YOUTUBE PROFITS FROM ADS ON EATING DISORDER CONTENT

Videos containing harmful eating disorder content carried ads from major brands such as Grammarly, T-Mobile, HelloFresh, and Nike, showing that YouTube is actively profiting from hosting the content. Researchers tested whether videos carried ads by loading the videos and checking whether ads were showing, capturing screenshots each time.

The following section includes examples of ads appearing next to content categorized by researchers as either harmful eating disorder content or self-harm and suicide content.

**Note on advertisers:** This section is not intended to criticize brands whose ads may be served on content without their knowledge or control.

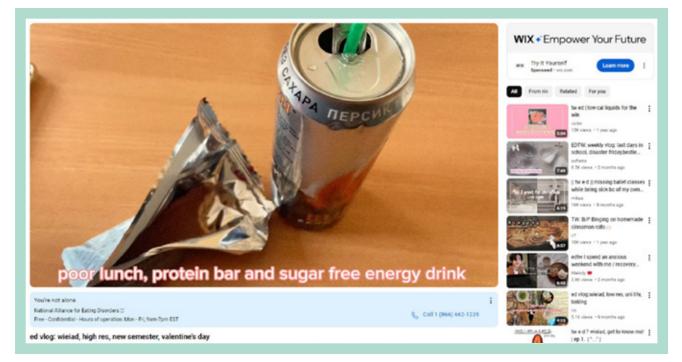
# Ad Example: Nike

The image below shows an ad for Nike that was shown to the right of a video featuring purging.<sup>39</sup> This video also has a click-through warning from YouTube that it contains "suicide and self harm" content and yet YouTube is still placing ads next to it.



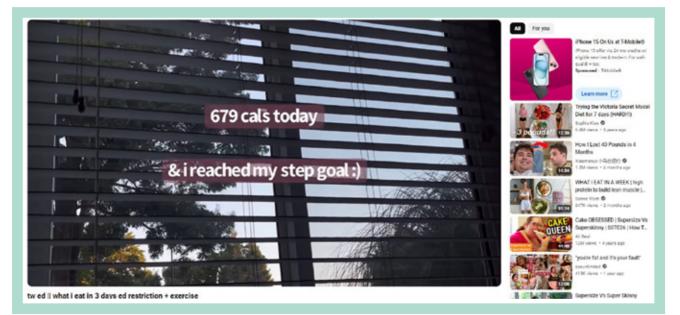
# Ad Example: Wix

An ad for the website creation service Wix was shown to the right of this video while YouTube's standard crisis resource panel for eating disorders was below it. The video features the user engaging in dangerously restrictive eating behaviors.<sup>40</sup> This video is labeled by YouTube with an eating disorder crisis panel, but still hosts ads.



# Ad Example: T-Mobile

An ad for T-Mobile was shown to the right of this video which was uploaded by a user sharing a dangerously low caloric intake that goes below the threshold for starvation.<sup>41</sup>



# **Ad Example: Grammarly**

This ad for Grammarly was shown to the right of a video of a user referencing their eating disorder in the title and sharing a dangerously low caloric intake.<sup>42</sup>



# **Ad Example: Hello Fresh**

This ad for HelloFresh, a popular healthy meal delivery service, was shown to the right of this video featuring a user and their eating disorder food haul.<sup>43</sup>



# Ad Example: Depop

This ad for Depop can be seen to the right of a video that features instructional self-harm content.<sup>44</sup>

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# 9. YOUTUBE FAILS TO ACT ON 81% OF HARMFUL EATING DISORDER CONTENT

YouTube failed to act on 81% of a sample of 100 videos containing harmful eating disorder content when we flagged it using the platform's own reporting tools.

One week after we flagged the videos to YouTube, only 17 harmful videos were removed, 1 was age-restricted, and 1 had a crisis resource panel added. Two weeks after we reported the content, there had been no additional actions taken.

To test YouTube's response to reported content, we identified a sample of 100 videos that had been recommended to our 13-year-old test account that breached the platform's policies on eating disorder content. Using YouTube own reporting tools, we flagged the content and then checked whether YouTube had acted one week and two weeks later.

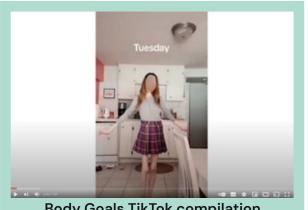
YouTube's Response	One week after reporting	Two weeks after reporting
No Action	81%	81%
Removed	17%	17%
Age-Restricted	1%	1%
Crisis Panel Added	1%	1%

YouTube enforced their own policies inconsistently. YouTube removed some WIEIAD (What I Eat In A Day) videos featuring users with disordered eating behaviors, but left up the majority of reported videos, some showing even more extreme calorie restriction. All reported ABC diet videos were also left up. Two thinspiration videos over 10 years old were taken down, while newer ones remained.

# Examples of Content Youtube failed to remove or age restrict



This video shows what a YouTuber with an eating disorder eats in a day. In a full day they eat only a single meal that is 484 calories and discuss feeling "guilty" for eating that much. This video was still live two weeks after being reported to YouTube.



Body Goals TikTok compilation | 22K Views This is a thinspiration video made up of clips of dangerously thin women. One clip says, "I'm so hungry" and then shows images of thin kpop stars and says, "Suck it up". This video was still live two weeks after being reported to YouTube.



# **10. RECOMMENDATIONS**

YouTube, as the platform of choice for young people, has a responsibility to ensure that it is safe for their use. CCDH, over several years, has documented the harms social media platforms pose to young users, particularly those most vulnerable to eating disorders, self-harm, suicidal thoughts at a critical stage of their development.

Much of the significant policy conversation related to protecting kids online in the United States is derailed by discussions of the right to free speech and content moderation. We must be very clear: this is about business. There is no responsible business model which creates an algorithm that promotes harmful content to children, day in and day out, turning a profit as that content becomes more extreme.

# <u>1. YouTube: Fix your algorithm. YouTube is not safe for teens.</u>

Relative to other platforms, YouTube has a detailed policy against videos that promote harmful eating disorder content. Content which promotes, glorifies, provides instructions or demonstrates imitate behavior for disordered eating habits is restricted on the platform. YouTube also claims to age-restrict content related to eating disorders to 18+ and limit repeat recommendations for this kind of content.<sup>45</sup> Not only does our research find that the platform recommends harmful content to users as young as 13, but YouTube repeatedly and consistently recommends these videos that violate their rules. When violative content is reported to the platform, it remains online in 81% of our reports.

CCDH recognizes that discussion of these issues is sensitive, and research is ongoing. The removal of content should only be in cases where the videos are in violation of YouTube's policies. However, for these rules to be meaningful, they must be acted on. YouTube should provide resources and assistance to creators or users who are vulnerable to this content, rather than recommend more of it. Crisis resource panels are helpful, but if they appear on otherwise harmful videos there should be a clear and transparent process as to how they ended up in a child's video recommendations.

#### 2. Advertisers: ensure your budgets aren't funding harmful content.

CCDH discovered household brands appearing next to videos promoting eating disorders. Advertisers have agency in their relationships with platforms. Brands should demand answers from social media companies on where their ads appear, how often, and to whom, to determine whether their budgets are funding a business model which fuels depression and eating disorders in a generation of young people.

# <u>3. Policymakers: While other countries have passed protections for kids, the US has failed to protect kids online by stalling legislation and keeping Section 230 intact.</u>

In Europe and the United Kingdom, with online safety laws on the books, there are more options to hold platforms accountable for recommending harmful content to children and young people.

# In the European Union:

The EU's Digital Services Act demands a focus on the protection of minors in the mandatory risk assessments and taken by companies in which they must assess "negative effects in relation to the protection of minors and serious negative consequences to a person's physical and mental well-being".<sup>46</sup> It also imposes a special obligation on platforms to ensure the safety of minors using their service which must be substantiated through the drafting of guidelines by the European Commission and Digital Services Supervisory Board.<sup>47</sup> As this process is currently ongoing, the Commission, Board and other stakeholders have the opportunity to prevent the serving of harmful content to children through recommender systems, forcing platforms to take measures such as turning recommendations off for users under 18.<sup>48</sup>

A request for information regarding recommender systems was sent by the EU Commission to Google in September 2024, citing the platform's obligation to protect user well-being and minors using their service.<sup>49</sup> An earlier request for information was sent to YouTube in September of 2023 regarding the protection of minors, and their mental and physical health but no further enforcement action has yet been taken.<sup>50</sup> In light of YouTube's blatant failures to protect minors using its services as brought to light in this report, the Commission should escalate its DSA investigations into YouTube to force much needed change in the way they serve content to minors.

# In the United Kingdom:

The UK's online safety regulation will be enforced next year. The Online Safety Act (2023) requires that social media platforms like YouTube provide a higher level of protection for children than adults and specifies categories of content that is harmful to children like self-harm and eating disorder promotion.<sup>51</sup> The content examined in this report will be classified as *primary priority content harmful to children* under the OSA, meaning YouTube will be required to institute highly effective age verification technology and apply protective measures to its recommender systems to ensure that children are not recommended this content. CCDH supports these requirements and looks forward to their application, but as the regulator OFCOM said to platforms this summer, just because the regulations are not yet enforced does not mean platforms should wait to ensure child safety.<sup>52</sup> YouTube appears incapable of preventing the prevalence and recommendation of this content, despite knowing these requirements will soon be in force.

#### In the United States:

In the US, where Google/Alphabet, YouTube's parent company, is based, policy progress has stalled on important bills such as the Kids Online Safety Act (KOSA) and Children and Teens' Online Privacy Protection Act 2.0 (COPPA 2.0). KOSA has passed through at least two sessions of Congress. While the rest of the world has legislated to protect their children, American kids are suffering the consequences of their own government failing to rein in companies harming them.

Section 230 of the Communications Decency Act has been successfully used as a blanket shield for liability by platforms. While the courts decide whether bills like the Age-Appropriate Design Code are legal in California, Maryland, and many states across the country, platforms can continue the status quo of irresponsibility for their algorithms.

CCDH advocates for a reformed Section 230 to increase platform accountability and responsibility for their business behavior as a critical step to protecting kids online. Platforms should not be liable for user speech—but they should be liable for their conduct, promoting harmful content through algorithmic recommendation systems and their continued deliberate indifference to reports of harm. CCDH believes that making platforms liable for failing to act on harmful content aimed at or accessed by children would incentivize them to create a better and healthier experience for kids.



# **APPENDIX 1: METHODOLOGY**

This report investigates YouTube's role in promoting eating disorder and weight loss content to potentially vulnerable young people. To do this, we ran 100 simulations of the platform's recommendation system, collecting the top ten recommendations on each one to create a sample of 1,000 videos.

# How we set up 100 simulations of YouTube's recommendation system

YouTube's "Up Next" recommendation panel appears on the right-hand side of the screen when a video is playing.<sup>53</sup> Our experiment focused on identifying the type of videos that YouTube recommends in a situation in which a user has already started watching a video that might suggest an interest in eating disorders.

To test this, we collected an initial set of 100 "seed" videos to simulate the behavior of a user watching one and seeing the recommendations that appear. The set of seed videos were chosen as examples of videos that are easily discoverable on the platform and that contain harmful eating disorder content. In doing so, the sample is intended to mimic the kinds of video that a user might easily come across if they displayed an initial interest in eating disorder content.

To identify the 100 seed videos, researchers searched 20 keywords or phrases relating to eating disorders, such as "ED inspo" and collected videos that appeared in the top ten search results. Out of these search results, videos were selected for the seed dataset where they were assessed by researchers as meeting the threshold for harmful content, meaning they either promoted or glamorized eating disorders, contained weight-based bullying in the context of eating disorders or showed imitable behavior.

Included in the seed sample were both traditional videos and playlists of videos, which consist of a selection of separate videos that are arranged under a title and description. Playlists were included in the analysis because they appeared prominently in our search results for eating disorder themes and they carry the "Up Next" recommendation panel. YouTube Shorts do not carry the "Up Next" recommendation panel and therefore weren't included.

# How we ran the 100 simulations of YouTube's recommendation system

Since the experiment was designed to study the videos recommended to young users, we created a test account with its age to 13 years old during the account set-up process. The account's gender was set to female.

Using this account, we loaded up each of the 100 "seed" videos and captured a screenshot of the top ten recommendations featured on YouTube's "Up Next" recommendation panel. We then clicked through all the top ten recommendations from the child's account, noting the videos' name and link, and whether the video was visible to the account. This data was collected between the 24th of July and the 2nd of August 2024. To ensure that each of the 100 simulations of the recommendation system were representative of what YouTube would show to someone with an initial interest in eating disorders, we set up the account to automatically delete any viewing history and not to use cookies. This means that each of the 100 simulations can be seen as a separate test of what YouTube's algorithm might show to a brand-new account with no prior viewing history.

While carrying out this analysis, researchers used a VPN to locate the account in the US, meaning the results of the analysis should be interpreted to apply in the US context. All the simulations of YouTube's recommendation system and subsequent data collection and analysis took place between July and September 2024.

#### Why we focused on a female 13-year-old account in our testing

Eating disorders can affect people of all ages and genders. Up to 28.8 million people in the US suffer from either anorexia, bulimia or a binge eating disorder in their lifetime.<sup>54</sup>

Data shows that eating disorders predominantly affect young people, with the age of onset occurring most often between 12 and 25.<sup>55</sup> In addition, 95% of first-time cases occur before 25, and there is also a risk of recurrence later in life.<sup>56</sup> Females are also two times more likely to have an eating disorder.<sup>57</sup>

This report investigates YouTube's role in promoting eating disorder and weight loss content to potentially vulnerable young people. To do this, we ran 100 simulations of the platform's recommendation system, collecting the top ten recommendations on each one to create a sample of 1,000 videos.

Ultimately, we used a female identified account on the lower end of this age range to test YouTube's level of protection for the most vulnerable users and the effectiveness of its agerestriction policies.

#### How we analyzed and categorized content

Each of the 1,000 recommended videos were categorized by researchers according to the type of content that they contained. They were grouped into the following categories:

- Harmful eating disorder content: Content that we assess to have breached YouTube's
  policies on eating disorder content, meaning videos that promote or glorifying eating
  disorders, instructions on how to engage in eating disorders, videos that feature imitable
  behavior relating to eating disorders and weight-based bullying in the context of eating
  disorders.
- Other eating disorder content: Content that mentions or references eating disorders but does not glamorize eating disorders or otherwise hit the definition of 'harmful' as specified above. This includes content that discusses weight loss in the context of eating disorders.

- Weight loss content: Content that focuses on weight loss themes, routines or diets. This includes diets that advise calorie restriction to less extreme levels to those seen in eating disorder content.
- Unrelated content: Content that isn't directly related to eating disorders or weight loss.

In categorizing videos, decisions were all agreed by at least two researchers to ensure consistent application of definitions. In a small number of cases, videos had been removed before researchers were able to analyze the videos, and these they were assigned as 'unrelated'. For each video, researchers collected a screenshot of the video and the number of views it had at the time the data collection took place.

In addition to categorizing videos, researchers checked to see for each video whether they held a crisis resource panel. Crisis resource panels appear underneath videos as they play, providing resources and information from global mental health support organizations, such as NEDA in the US.<sup>58</sup>

While collecting each recommendation video, researchers also noted which videos had ads. Researchers recorded the brand name and screenshotted the page showing the video title and the ad, either playing before the video or a static ad to the side.

#### How we tested YouTube's action on harmful content

Researchers selected 100 unique videos categorized as harmful eating disorder content to report to YouTube. Since there is no specific reporting category for eating disorder content, they chose the category "Harmful or Dangerous Acts" and the subcategory "Other Dangerous Acts." In the additional details box, they provided a one-sentence explanation of how each video violated YouTube's policies.

One week later, researchers manually checked whether the videos had been removed, restricted, or remained live. The same test was conducted again two weeks after reporting to see if any additional content had been removed or restricted.

# APPENDIX 2: EXAMPLE HARMFUL EATING DISORDER CONTENT

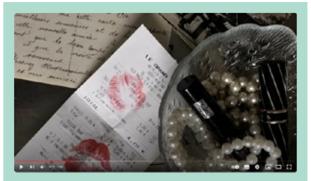
This section contains further examples of videos classified as harmful eating disorder content that were recommended to our teen girl account during testing. They are grouped into various content trends that appeared prominently in the research.

# Thinspo: Skeletal imagery and manifesting thinness

Thinspo violates YouTube's policy against "promoting or glorifying eating disorders."<sup>59</sup> Although YouTube blocks terms like "thinspiration" and "thinspo," such videos still appear in recommendations. Traditional thinspo features emaciated bodies for inspiration, while 'subliminal' thinspo uses affirmations like "overall super horrifically thin bod" layered with sounds to influence the subconscious. These affirmations are often listed in pinned comments, Google Docs, or Padlet links.

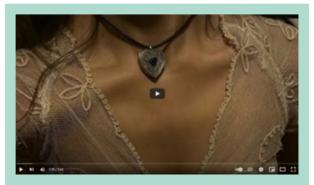


Body Goals TikTok Compilation 2 7.5k Views This video example includes TikToks of women showing off ultra-thin bodies, extreme thigh gaps, and emaciated arms and stomachs.



90 xtreme wl ug bundle ! +500 subs 894k Views

This video is an example of a 'subliminal' video, for which the list of supposed "benefits" include "losing a big amount of weight, being literally skin and bones, lost of appetite, even literally developing an €d [Eating disorder] in some." In this example, the subliminal "benefits" are detailed in a pinned comment.



Svelte 2.0 | 1.1 million views

This video is an example of a 'subliminal' thinspiration video, for which the list of affirmations include, "you're so horrifyingly thin...your body is cadaverous and could be described as severely underfed and or the definition of marasmus." The affirmations can be found in a google doc link in the description.

# What I Eat In A Day: Daily disordered eating habits

Videos labeled "ED WIEIAD" or "WIEIAD tw ED" showcase daily eating habits of those with eating disorders, often depicting extremely low-calorie diets and high restriction. These videos usually begin with a user-added trigger warning, acknowledging their potential harm. These videos violate YouTube policies for featuring "imitable behavior". We included WIEIAD videos if they specifically mentioned disordered eating or had calorie counts of less than 1,200 per day. General guidelines suggest calorie intake even for sedentary individuals should not fall below 1,200 a day in women or 1,500 a day in men, except under the supervision of a doctor.



This user talks about doing a high restriction diet because they have "been binging a lot recently, nd almost back to my hw:(" or almost back to their healthy weight. They also show how they watch "edyt" or eating disorder YouTube videos to help them fast and give them inspiration.



80k Views

In this video, the user shows their eating disorder diet and exercise, which is often below 1,000 calories. On one day, the user documents eating food totaling just 461 calories.

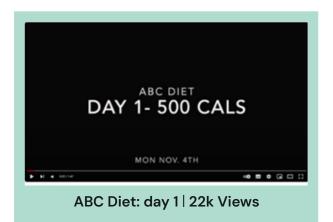


Two days of restriction + fasting | tw ed | 58k Views

The description for this video states "oh sweet relapse...back into restricting, fasting, b/p... ect ect y'all know the song."

#### **ABC Diet: Anorexia Boot Camp Diet**

Extreme diets are also prohibited by YouTube's eating disorder policies, as they are disordered eating behavior with "extreme restriction of calories."<sup>60</sup> One that appeared in the recommendations is the ABC diet, also known as the Anorexia Boot Camp diet, in which the dieter attempts to kickstart an eating disorder by alternating extreme calorie restriction and fasting.

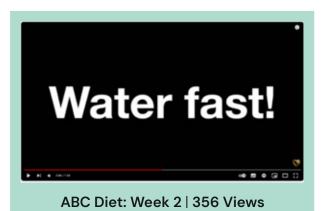


This user shows their eating on first day of the Anorexia Boot Camp diet; the goal is to have only 500 calories, the user ends the day only eating 316 calories.



This user shows their progress on day 30 of the anorexia boot camp diet and talks about eating only a banana and a crab leg.

Official day 30 of the ABC diet | 36k Views



This user shows what food they eat on the Anorexia Boot Camp diet week 2; every day is below 500 calories with one day not eating at all.

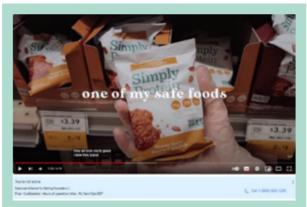
#### Safe Food: Hauls of low or no calorie foods

Videos that talk about "safe foods" or foods that the person with the eating disorders can eat without fear of gaining weight.<sup>61</sup> Safe foods are low or no calorie items. ED (eating disorder) grocery haul videos also generally talk about foods that are low or no calorie and are good to eat with extreme calorie restriction. These videos are against YouTube 's policy because they feature "imitable behavior" and give users ideas for eating disorder diets.<sup>62</sup>



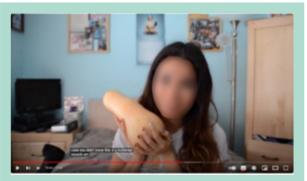
My Safe Foods (trigger warning) | 31k Views

This user describes their safe foods, a list of low calorie and low fat foods that they can eat without fear of gaining weight.



ED shopping haul ....;\*\*my safe and trigger foods \*\*\*:... | 74k Views

This user films a trip to the grocery store pointing out safe and "trigger" foods (that trigger binges).



This user describes their safe foods and favorite foods which are generally very low calorie, as well as their "fear" foods that they feel like they can't eat because of their eating disorder.

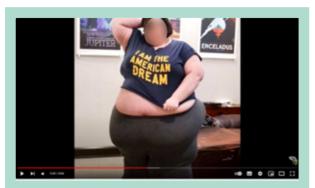
My Current Safe, Fear and Favourite Foods | 24k Views



rating safe foods but I live with my parents || tw ed | 37k Views This video titled "rating safe foods but I live with my parents || tw ed" goes through foods the user's parent buys that are good for their eating disorder. The user likes papayas because "parents don't get sus" or suspicious.

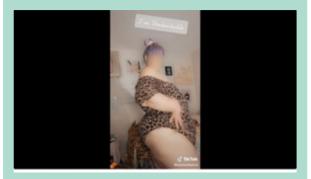
#### Fatspo: Fat shaming to inspire weight loss

Fatspo, inspires viewers to be thin by using fat bodies as objects of fear or disgust, mocking them as "cringe." These videos are compiled into "fatspo" playlists to discourage eating and weight gain. This violates YouTube's guidelines as "weight-based bullying in the context of eating disorders".



Fat people cringe | 555k Views

This video is a compilation of videos and pictures of fat people narrated by a man mocking them for their weight.



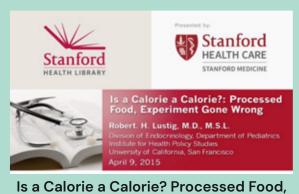
Fat acceptance Cringe #58 – Painful TikTok Cringe Compilation | 150k Views

This compilation of TikTok videos takes content from accounts of fat people who are speaking about their experiences being fat or to selfaffirm their body. It was labeled as fat acceptance "cringe".

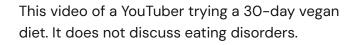
## **APPENDIX 3: EXAMPLES WEIGHT LOSS VIDEOS**

This section contains examples of weight loss content to a teen girl account during our testing. Weight loss content was defined as content that focuses on weight loss themes, routines or diets, including diets that advise calorie restriction to less extreme levels to those seen in eating disorder content.

#### Weight loss content



Is a Calorie a Calorie? Processed Food, Experiment Gone Wrong | 11.9M Views This video by Stanford Medicine is a scientific lecture about calories and weight. It does not discuss eating disorders.





Doctor Mike Goes VEGAN For 30 Days Here's How My Body Reacted... | 3.6M Views

counterhate.com



lose weight? | calories, macros, recipes + more | 894K Views This video of a YouTuber eating a healthier diet for a week. It does not discuss eating disorders.





counterhate.com

# APPENDIX 4: EXAMPLES OF OTHER EATING DISORDER VIDEOS

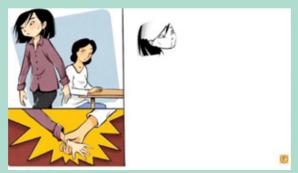
Other eating disorder content was content that mentions or references eating disorders but does not glamorize them or otherwise hit the definition of 'harmful' as specified by YouTube's policies.

#### Other eating disorder content



Are You Gonna Eat That? Short film. | 1.2M Views

This short film dramatization about eating disorders focuses on the negative impact of the disorders.



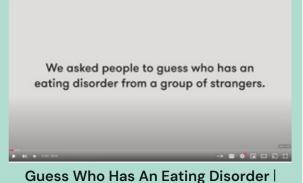
My Mom Found Out That I Haven't Eaten in Weeks | 778K Views

This is an animated video dramatization of a person with an eating disorder who eventually goes through recovery.



The concerning story of Eugenia Cooney | 685K Views

This video discusses Eugenia Cooney, an influencer known for her eating disorder.

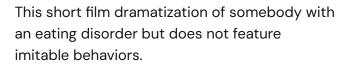


This video features numerous stories from people with eating disorders, discussions of how that negatively affected them, and a link to resources.

Guess Who Has An Eating Disorder | Lineup | Cut | 950K Views



My Friend Ana | Short Film | 286K Views





one day, six fear foods | anorexia recovery | 159K Views

This video of a user in eating disorder recovery trying foods they previously restricted from does not have imitable behaviors.

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- 10 More detail on this finding is available in section 6
- 11 More detail on this finding is available in section 6
- 12 More detail on this finding is available in section 6
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