Digital Platforms OIN STEROIDS:

How Facebook and Google Enable the Sale of Illegal Appearance and Performance Enhancing Drugs





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illions of Americans turning to illegal and potentially dangerous appearance and performance enhancing drugs (APEDs) to enhance their physical appearance or step up their athletic performance are being aided by three unlikely partners – drug dealers, Facebook and Google — a new Digital Citizens Alliance (DCA) investigation has uncovered.

The scheme uncovered by DCA during a six-month investigation (Feb. 2019 to July 2019) is simple: drug dealers advertise their "product" online and digital platforms turn a blind eye to illegal drug sales and promotions on their sites.

As part of its investigation, DCA purchased APEDs from a China-based dealer who promoted them on Facebook. After the drugs arrived, Digital Citizens sent the two unopened packages to Illinois-based lab Microtrace for testing. Microtrace reported traces of a potentially harmful steroid in one package while another package allegedly containing human growth hormone (HGH) was found to be a fake.

The research findings were rather startling:

- For several years, APED sellers have used Facebook pages to market and sell drugs. In at least one instance, Facebook placed a "Shop Now" button to enable users to make drug purchases. On another page targeting bodybuilders, sellers offered Somatropin, a human growth hormone (HGH) used to treat growth failure in children.
- Despite promises by Google to crack down on drug sales, numerous YouTube videos promote the sale of APEDs, among them "Steroids Corner," a group selling the drugs that use a WhatsApp number as the point of contact.
- Facebook offered "Suggested Pages" that promoted access to APEDs. These suggestions often were placed on other Facebook group pages related to sports. In one case, Facebook suggested steroid dealers on the page of the Taylor Hooton Foundation (THF), a group dedicated to alerting the public to the dangers of APEDs.
- APED dealers in some cases also offered access to opioids, drugs that have fueled an epidemic that has killed hundreds of thousands of Americans in the last decade.

Social media
platforms seem
to only take down
illegal and/
or illicit content
when it becomes
a PR problem —
not for the good
of their users.

- Not much has changed in six years. In 2013, <u>DCA and The Taylor Hooton Foundation</u> researchers found dozens of videos on YouTube demonstrating how to acquire and use APEDs. Pictures seemingly demonstrated that APEDs can give teens bigger muscles and more attractive physiques. A broadcast news story on the DCA/THF report forced YouTube (and its parent company Google) to take down the videos. But six years later, not only are the videos back on YouTube, they are showing up on other platforms as well.
- Whether a street corner or an online site, criminals tend to go where it's easiest. And the proliferation of APEDs is being made easier by the unwillingness of digital platforms to take the issue seriously.

Monetizing Physical and Emotional Insecurities

hen it comes to APEDs, most people think of bodybuilders or professional athletes seeking to gain an advantage. But today's users are diverse, ranging from people trying to replicate the physique of a celebrity or social media star to athletes looking for an edge or chasing a college scholarship. According to a DCA survey of 2,417 U.S. consumers, 10 percent of American consumers admitted to using steroids or HGH. More than half of those who acknowledged taking APEDs said they wanted to improve their physical appearance. Only one-third said it was to improve athletic performance.

Online markets are now among the most popular places to buy these drugs. More than a third of those who purchased the drugs said they got them online. The DCA investigation conducted in conjunction with GIPEC, a cyber security intelligence and forensics company, found a vibrant market on Facebook and Google platforms for APEDs and other drugs.

That's the cruel irony: celebrities use social media sites such as Instagram or YouTube to create the image of modern glamour that increasingly leads men and women to buy APEDs online.

And where do they go online?

Facebook and Google, the respective owners of Instagram and YouTube.

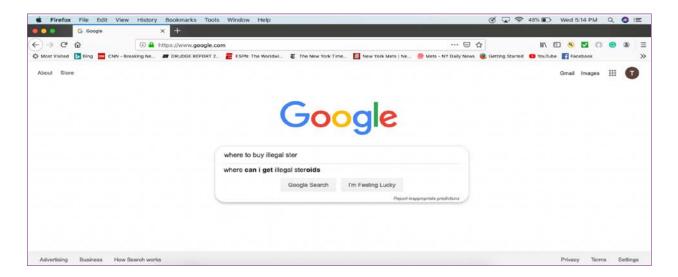
In fact, as the investigation progressed, Facebook, YouTube, and Instagram sent investigators unsolicited suggestions on where to find the illegal drugs. An investigator reported that when it came to the platforms he was "no longer searching for steroids, steroids were searching for him."

While a celebrity's social media image is often an illusion, the dangers of these drugs are real: 63 percent of those who said they used steroids or HGH reported experiencing side effects or health issues. More than half of those who either took them, or knew someone who did, reported serious health issues. Some cases end in tragedy. Taylor Hooton was a promising 16-year-old Texas high schooler who turned to APEDs to boost his baseball career, only to experience severe depression that prompted him to take his own life.

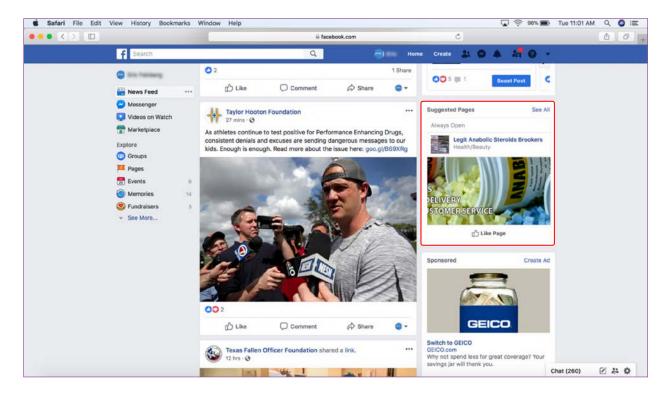
Searching for Steroids, Steroids Searching for You

nd just like they do for everything else in their lives, those seeking illegal drugs often turn to the Internet to find them. And increasingly, the sellers of APEDs rely on Facebook and Google, and their respective subsidiaries Instagram and YouTube.

The DCA/GIPEC investigation found hundreds of examples of drug dealers selling performance and appearance enhancing drugs. It starts with a search. Google makes it easy by auto-completing a search, as seen below.



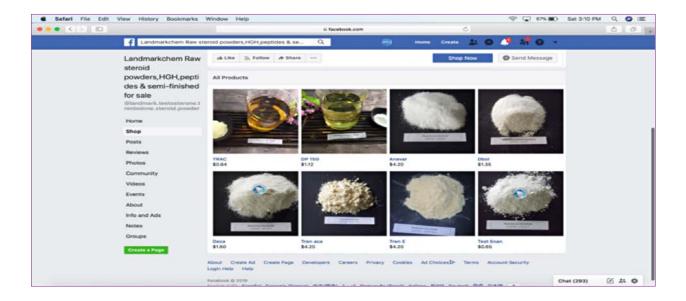
Once a user starts searching, the platforms' algorithm takes over and steroids start searching for the user. The example below shows how Facebook's analytics can find steroids-related content and offer up dealers. In this case, however, it's to the wrong audience. Facebook recommends a European steroids supplier next to a post from the Taylor Hooton Foundation – the leading safety group raising awareness about the dangers of steroids.



The page above contains an ad with a link for "Legit Anabolic Steroid Brokers". As of August 20, that page is still up on Facebook. The screenshot below, that GIPEC researchers found on March 4, 2019, contains an ad for "Europe Anabolic Steroids". That page is now down.



Once a user is ready to buy illicit APEDs and HGH, Facebook makes that easy as well. In the screenshot below, Facebook accommodated the drug dealers by including a convenient "Shop Now" button to expedite purchases.



DCA contacted the operators of the Landmark Chemicals (also known as Landmark Nutraceuticals Co., Limited) Facebook page, about the HGH and steroids they offer for sale. A man representing Landmark offered a wide array of illicit drugs.



(Landmark screenshots from March 6 & 9, 2019)

DCA purchased two vials (200iu) of HGH from the dealer, who said the shipment would come from a "NY warehouse." In addition, DCA also purchased three vials (300iu) of Deca Durabolin (also known as Nandrolone) from a shipment that would come from a "FL warehouse." The \$360 payment was made using Venmo, a mobile service owned by PayPal.

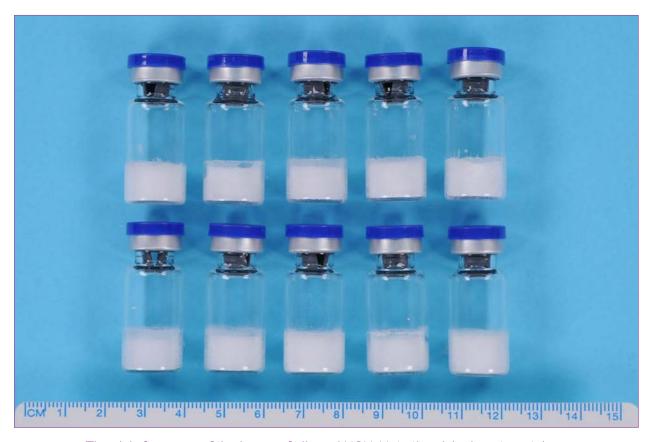
Deca Durabolin is supposed to be available only with a prescription because of the because of the potential side effects, including liver damage. In 2017, the Food and Drug Administration warned consumers: "HGH has important benefits, but also serious, known risks. Among the possible long-term side effects of HGH is an increased risk of cancer, and other dangerous side effects have been reported, including nerve pain and elevated cholesterol and glucose levels. For this reason, HGH is carefully regulated in the U.S."

After the drugs arrived, Digital Citizens sent the two unopened packages to Illinois-based lab Microtrace for testing. Microtrace reported the first package contained three 10 mL vials of alleged Nandrolone Decanoate (image below) with labels from Elixicor Pharmaceuticals.

Microtrace reported that the second package contained two boxes consisting of 10 total vials of alleged HGH powder (image below). Microtrace noted that boxes and vials alleging to contain HGH were not labeled or have any marking.

Upon testing, Microtrace reported the following results:

- Traces of Nandrolone in the sample marked as Nandrolone.
- HGH was not detected in the sample alleged to be HGH.



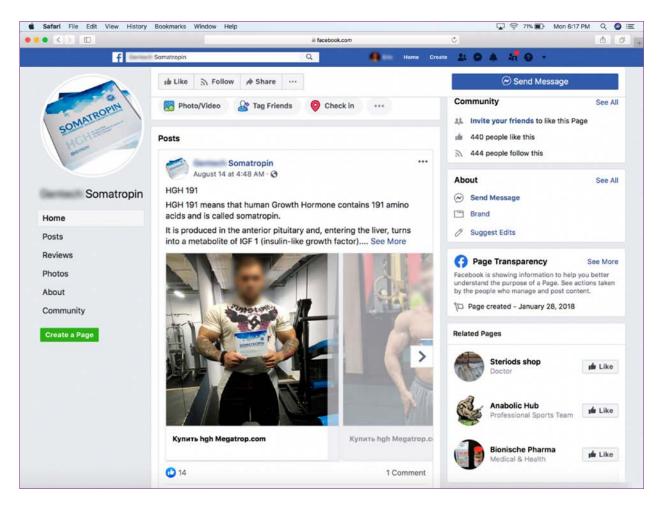
The vials from one of the boxes of alleged HGH. Note the vials do not contain labels. Test results detected no HGH in the sample alleged to be HGH.



Three vials of alleged nandrolone decanoate as they appeared after removal from their packaging. Traces of nandrolone decanoate were found in the sample marked as such.

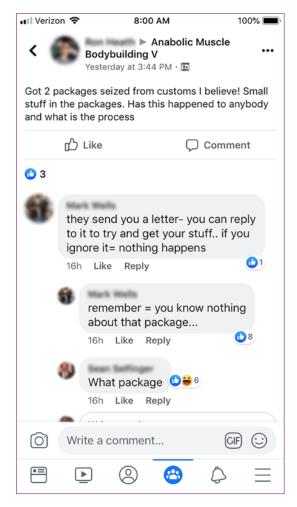
While the results are not surprising, they are disturbing. The HGH result is not surprising because experts tell Digital Citizens that authentic HGH costs significantly more than the \$200 the group paid for it. It's disturbing because that means would-be buyers from this dealer have no idea what they are putting in their body.

Equally disturbing, once a person browsed for the drugs, investigators found the platform continuously offered up suggestions on how to buy illegal APEDs. Among the suggestions was injectable Somatropin, a human growth hormone that is illegal to use without a prescription and has many potential side effects. This page promoting the drug for body builders has been active since January 2018.

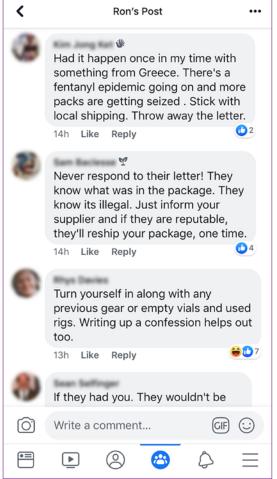


(screenshot from August 14, 2019)

As part of its investigation, DCA researchers joined several groups promoting the use and sale of APEDs to learn more. Upon joining a group called "Anabolic Muscle Building V" on Facebook, investigators found the below conversation between group members after one user's shipment had been seized by customs. Fellow members were quick to advise against any contact with law enforcement, recommended ways to avoid detection in the future and replace the lost shipment at no additional cost.

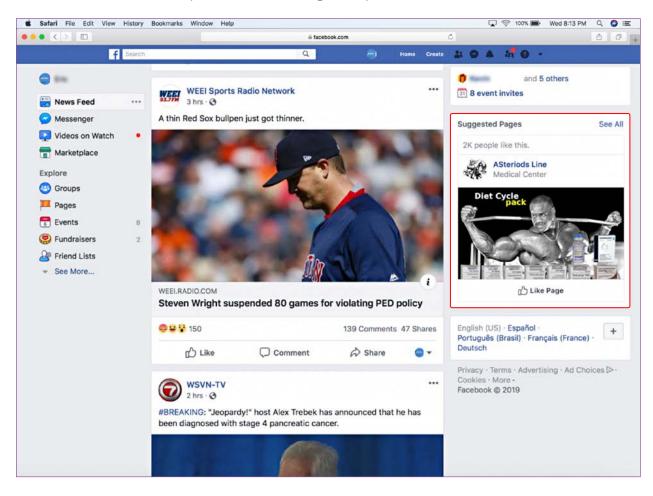


Facebook group member solicits advice after his package was seized by customs who alerted him to the seizure and asked for response.



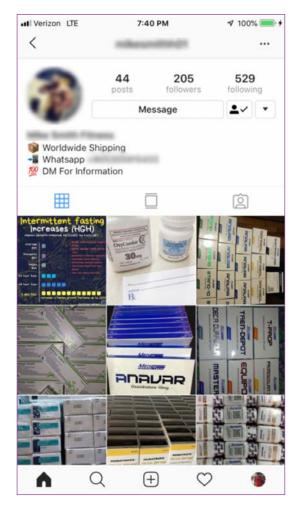
Group members respond with advice to avoid any interaction with customs and ways he can replace his lost shipment for free.

Facebook also suggested steroid pages alongside sports-related content from a prominent New England sports radio station.



(From March 6, 2019)

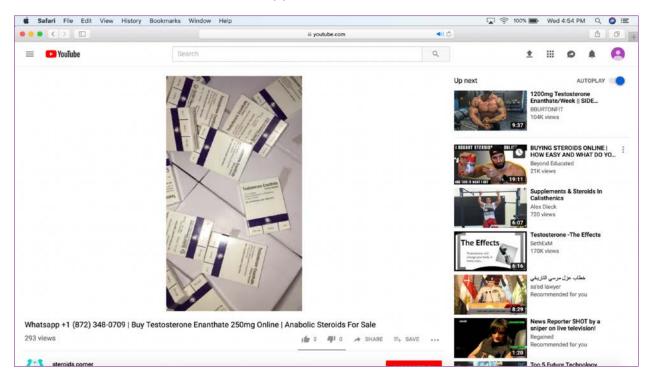
On Instagram, one account offered up steroids – and the possibility for more before the page was taken down.



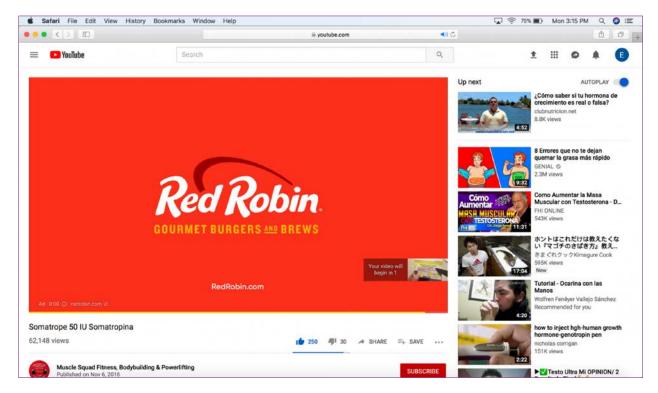
It's not just steroids and HGH for sale on this Instagram page. This steroids-related Instagram page offered prescription opioids for those in training before it was removed.

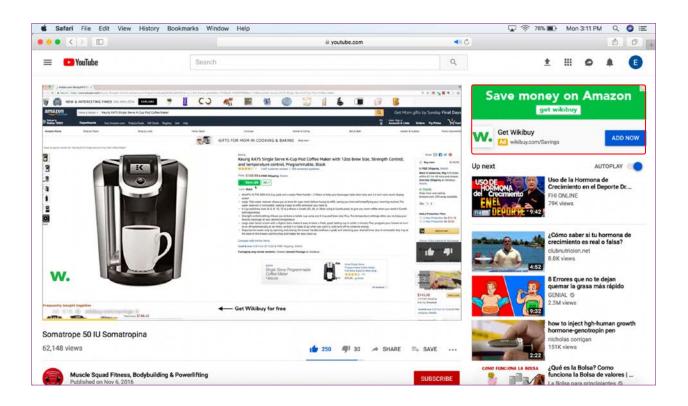


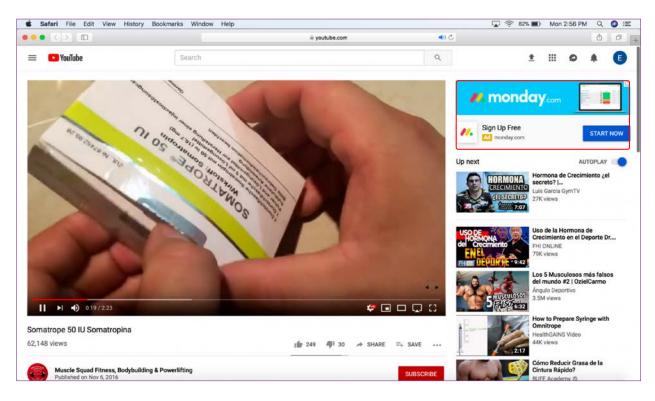
On the screenshot below, a dealer uses a YouTube account to sell Testosterone with a WhatsApp contact.



GIPEC researchers also found YouTube pages pushing APEDs that included paid advertising from companies like Red Robin, Wikibuy from Capital One, and Monday.com.

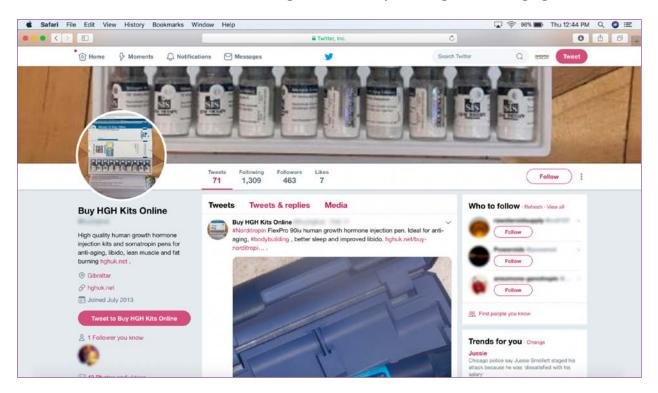






(screenshots from August 19, 2018)

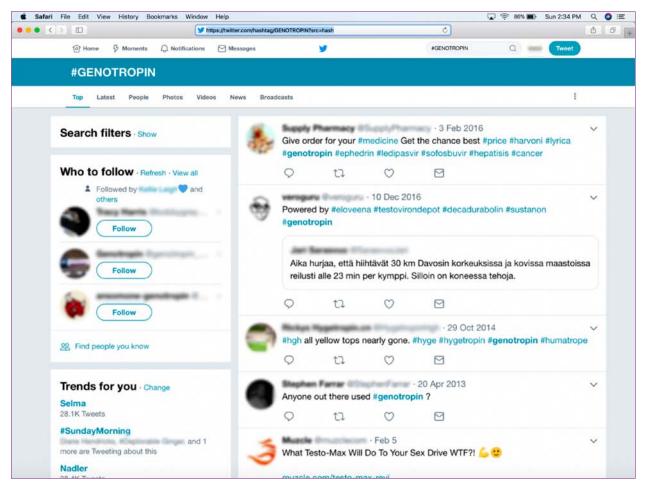
On twitter, GIPEC investigators discovered multiple accounts pushing APEDs. One account marketed the drugs for both body-building and "anti-aging."





(hghuk.com screenshots from February 21, 2019)

Using hashtags on twitter makes it easy not just to find APEDs pushers, but also to connect with a community looking for guidance on established sellers and how to administer the drugs once you get them. Below is an example of the posts using "#genotropin."

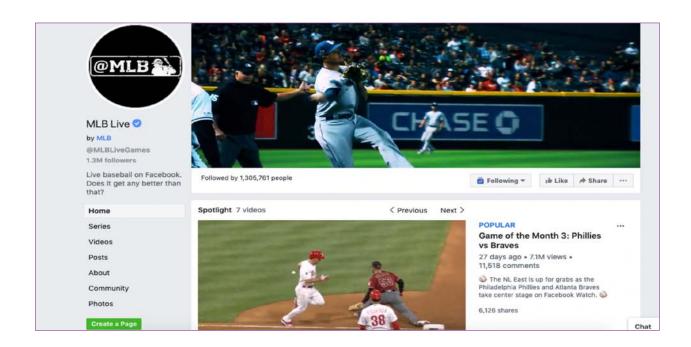


(Screenshot from March 3, 2019)

Facebook, YouTube and Major U.S. Sports Leagues

acebook's willingness to allow APED dealers is even more shocking because it is a broadcast partner with both Major League Baseball (MLB) and the National Football League (NFL). In May 2017, MLB Commissioner Rob Manfred called his partnership with Facebook "probably the most important single announcement [from the Owners' Meetings]." Below is a screenshot of Facebook's page to promote and watch MLB games.

The NFL and Facebook are also <u>engaged in a multi-year deal</u> where NFL game recaps and official highlights from all 256 regular season, playoff games, and the <u>Super Bowl</u> are available globally on Facebook. Live NFL games are available to YouTube TV subscribers through CBS, FOX, ESPN and NBC.



Earlier this year, MLB also signed a contract with YouTube to live-stream 13 games during the second half of the 2019 MLB season. These games are free for viewers to watch and available in the U.S., Canada and Puerto Rico. A July 18th game between the Philadelphia Phillies and the Los Angeles Dodgers was exclusively broadcasted on YouTube and drew more than 200,000 concurrent viewers. The MLB's official YouTube channel also received more than 2 million views after the game.

In addition to the package of exclusive games, YouTube offers streaming of the MLB network through its subscription arm, YouTube TV, which has also served as a presenting sponsor of the World Series the past two postseasons and will do so again this fall.

MLB has been one of the Taylor Hooton Foundation's biggest financial and promotional supporters since the organization's founding more than 15 years ago. The league's support has helped THF impact millions through educational programs and awareness campaigns for young people and their parents to understand the dangers of APEDs.

The actions of MLB make it clear the organization takes this issue very seriously, but what about the digital platforms?

Illicit Drugs and Easy Online Access: A Dangerous Mix

uying illegal drugs online is a crapshoot. First, if they are real APEDs, taking them without a doctor's oversight can be dangerous. Second, it's common for the drugs to be counterfeit, which means users do not know what they are ingesting.

As a country, we have to look at APEDs and HGH in a new way. In the social media era, there is enormous pressure on men and women, especially those who are younger, to look like their idols on Instagram and other sites. That is leading to new users of APEDs. Greater awareness is needed on the risks of these drugs, and the digital platforms and celebrity influencers that help create the demand for them while simultaneously offering the supply: access to potentially dangerous drugs sold with the promise of changing the way you look.

Time for Platforms to Walk the Walk

DCA calls on platforms to:

- Conduct annual internal investigations to determine how much of their revenues come from the monetization of content that is illegal or illicit. Results should be made public.
- Annually report on steps they are taking, including changes to their advertising algorithms, to combat criminals and bad actors who utilize their platforms.
- Create an industry initiative to share data on bad actors.
- Include public service announcements that appear after platform users search for APEDs or hashtags that steroid sellers use to push APEDs. These PSAs from platforms should make it clear that APEDs are addictive and can be deadly.

Different Topic, Same Revenue from Illicit Activities

llegal drug solicitation is just one of numerous ways that social media platforms have been unable to protect consumers from illicit and illegal activity.

For years, Facebook, Google, and other platforms have faced demands to be more responsible with user data, privacy and the content they allow on their sites. We should not expect less when it comes to drugs that teens and young adults often take to try to change their physical appearance or improve their athletic performance. In the DCA poll, 10 percent of those who admitted to taking steroids or HGH said they did so before the age of 18.

Between the companies mishandling of consumers' data and the public's increased awareness of illegal and/or illicit goods and services peddled on the platforms, social media operators have seen their public standing suffer dramatically. A DCA survey in June 2019 found that 53 percent of Americans think companies such as Facebook, Google and Twitter are irresponsible companies that put profits ahead of doing the right thing.

Earlier this year, a <u>Pew Research Center survey</u> found that just 50 percent of consumers feel technology companies had a positive impact on the United States, a 20 percent decline from just four years ago.

Six years ago, Harvard professor Ben Edelman <u>estimated that Google made \$1 billion in revenues</u> from illicit activities on its platforms (which by the way was a far cry from what the company said in response to questions from two state Attorneys General (AGs) that same year. <u>A Google spokesman did not provide a specific answer to the AGs).</u>

Perhaps all of the talk about connecting the world and spreading freedom inspired Americans to blindly give not just data, but also faith and trust to these companies.

Trust between platforms and their users has been broken. Now, the platforms can't just offer empty promises and apologies. They need to EARN trust back.

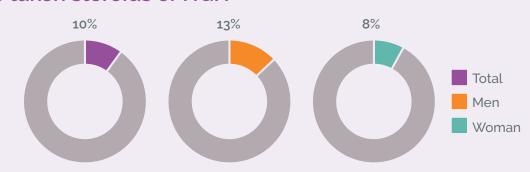
APEDs: Not Just for Sports Anymore, New Polling Shows

APEDs tend to only make the news when a superstar athlete such as cyclist Lance Armstrong, baseball superstar Alex Rodriguez, former Olympic champion Marion Jones or reigning Super Bowl MVP Julian Edelman gets caught. Less newsworthy, but far more important, is the fact that millions of Americans, including teens, use them every day. DCA wanted to learn more about steroids and HGH use, so it conducted a survey of 2,417 Americans in July 2019. Ten percent of respondents reported using the drugs. If you extrapolated that to the U.S. population it would mean millions of users at some point.

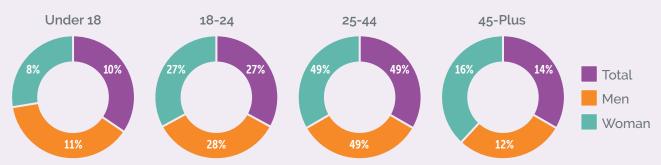
While the stereotype is of a young athlete or bulky bodybuilder, that may be a thing of the past. Now it may be more about your favorite performer than athlete: for those who acknowledge having used steroids, the most likely answer (52 percent) to why teens use them was to "look like the celebrities and other people they see on social media."

Here are some of the key findings from the DCA survey:

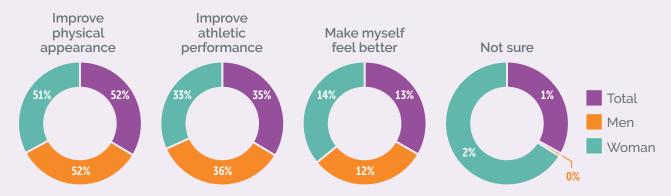
Have taken steroids or HGH



How old were you when you took them?



Reason for taking them?



Experience side effects or health issues?



What do these findings tell us? That educators and the medical community have to re-think their target audience and message when warning about the potential dangers of steroids. The Taylor Hooton Foundation, created by Don Hooton and his family after Taylor's suicide, has been at the forefront of educating young people and their families about appearance and performance enhancing drugs.

APED and HGH users are often unaware of the high price they could pay for using these drugs. In a 2018 study published in the Journal of Internal Medicine, researchers found that male steroid users had a mortality rate three times higher than nonusers. APED users also had significantly more hospital admissions and the harmful drugs have been linked to heart attacks, kidney and liver damage, and severe depression.

"Young people face enormous pressure, whether it's to look better, to get a scholarship to pay for college or live up to the unrealistic image of friends, celebrities and influencers on social media. Some seek a shortcut by using APEDs that offer the promise to play and look better," said Don Hooton, Executive Chairman of the Taylor Hooton Foundation. "These substances carry dangerous risks that can have tragic results. Our efforts to help our nation's youth steer clear of these risks are undermined when digital platforms such as Facebook and Google make it easy to acquire these substances online. These companies must be held accountable for this behavior and must take active steps immediately to cease enabling the sale of these substances via their platforms. NOW!"

No More Words, Time for Action

he time for discussion is over.

Internet platforms need to start the trust rebuilding process with increased transparency, including conducting annual internal investigations to determine how much of their revenues come from the monetization of content that is illegal or illicit. All research findings should be made public.

The platforms should immediately take steps to ensure that their algorithms stop suggesting illegal activities or products to users. This was a frequent occurrence in the DCA investigation on steroids, as well as other research on pedophilia — even more repulsive. If the platforms don't take immediate steps to demonstrate that they are addressing the issue, the U.S. Federal Trade Commission and U.S. Congress should swiftly move to hold hearings that demand a look at the algorithms — which have been corporate secrets guarded as closely as the recipes to Coca-Cola and Kentucky Fried Chicken. Australia already wants a closer look at the algorithms and there is no good reason why the U.S. should sit on the sidelines waiting for other countries to look first.

Finally, the platforms have the capability to identify and share information about bad actors. They have simply chosen not to do so. Analyzing usage data that they already collect can highlight behavior that is anomalous and suggests illicit, unlawful or illegal conduct. One model to follow would be the one used by casinos to identify cheats and share that information globally — a concept that DCA first proposed two years ago.

Social media and digital platforms have created a forum for everyone to express themselves. In that way, they have empowered people, especially teens and young adults. But it has also created a culture where image means everything, and "likes" on Instagram, Facebook or YouTube can often equate to a person's worth. To look like the celebrities they idolize or chase a college athletic scholarship, many people – young and older – are turning to APEDs. That creates health risks that may take years to manifest but are nevertheless concerning. Parents need to be mindful of changes in their children's physical appearance or mood swings.

But with over one-third of APEDs and HGH being purchased online, digital platforms must step up and take responsibility for how their sites are used. And if they don't, they must be held accountable.

Appendix: Microtrace Report

Microtrace IIC

microscopy • microchemistry • forensic consulting

29 August 2019

RE: MT19-0247 - Analysis of alleged Nandrolone Decanoate steroid samples

Dear Mr.

We have completed our analysis of two samples, which were submitted to our laboratory to determine the presence of a particular steroid in them. Preliminary results of this analysis were provided to you via e-mail on 23 August 2019. This report describes our analytical methods, documents our results, and discusses the conclusions we have drawn from them.

Samples

The following samples were received on 08 August 2019:

- Three vials of alleged Nandrolone Decanoate (Figures 1-3)
 - o Labeled: 10 mL Sterile Multiple dose Vial, LOT: 061519-03

Deca

Nandrolone Decanoate

Injection USP 300 mg/mL

For intramuscular use only

Elixicor Pharmaceuticals, Rx only

- Alleged human grown hormone (HGH) (Figures 4-7)
 - o Labeled: boxes and vials were not labeled.

Task

 Determine if the samples are the steroid they were purported to be, i.e., nandrolone decanoate and HGH.

Analytical Approach

Both samples were received in individual shipping boxes as shown in the Figures. Each sample was opened and examined. The three alleged nandrolone decanoate samples are in glass vials,

MT19-0247

which were labeled and contained a light yellow colored liquid. The twenty HGH samples were received in two separate boxes. Each box contains ten glass vials, which each contain a white powder. The boxes and the vials were both unlabeled as illustrated in the Figures.

A sample of the liquid from one vial of alleged nandrolone decanoate was extracted into chloroform for analysis by means of gas chromatography – mass spectrometry (GC-MS). One microliter of the chloroform extract of the alleged nandrolone decanoate sample was injected into the GC-MS. At approximately 34.82, 35.63 and 38.86-41.51 minutes peaks eluted that produced mass spectra consistent with that of nandrolone decanoate. This area of the recombined total ion chromatogram is shown in Figure 8. The appearance of the peaks in the chromatogram is likely due high concentration and the fact that the steroid elutes poorly through the GC. The mass spectrum for the peak eluting at approximately 34.82 minutes is shown in comparison to a reference spectrum of nandrolone decanoate in Figure 9. These results indicate that the alleged active ingredient, namely nandrolone decanoate, is indeed present in the labeled vial from which the sample for analysis was taken.

The alleged HGH powder was isolated from two vials and one subsample was placed into a reconstituted serum and the other was placed into distilled water. Both samples containing the questioned HGH were then analyzed by an enzyme-linked immunosorbent assay (*i.e.*, ELISA) test for HGH. In this reaction the solution being tested reacts with the reagent and develops a blue coloration if HGH is present. The reaction is then stopped by the addition of an acid that forms a yellow dye in the presence of HGH. At the same time the questioned HGH sample in serum, negative controls of serum without HGH, a reagent blank, and positive controls using serum containing HGH were all tested. The negative control serum containing the suspected HGH and the distilled water to which the suspected HGH had also been added both gave negative reactions, indicating the absence of HGH in the suspected HGH samples.² The results of these biochemical reactions are illustrated in Figure 10.

Summary and Conclusions

Two samples alleged to contain different steroids were received: Nandrolone Decanoate and human growth hormone. The presence of nandrolone decanoate was identified in one of the labeled vials based on its mass spectrum. Human growth hormone was not detected in the sample alleged to contain HGH.

Microtrace_{IIC}

¹ A standard of nandrolone decanoate would need to be analyzed under the same conditions to confirm the presence of the compound in the sample.

² Further analysis would need to be conducted to determine the composition of the white powder.

MT19-0247
If you have any questions concerning this report, or if we may be of further assistance, please do not hesitate to contact either of us directly. Thank you for consulting Microtrace.
Sincerely,
This report shall not be reproduced except in full, without written approval of Microtrace.
Analyses performed at Microtrace are accredited under ISO/IEC 17025. See certificate #5106.01 issued by the A2LA accrediting body.
Microtrace _{IIC}







Figure 3. The three vials of alleged nandrolone decanoate as they appeared after removal from their packaging.



Figure 4. Sealed package containing alleged human growth hormone (HGH).





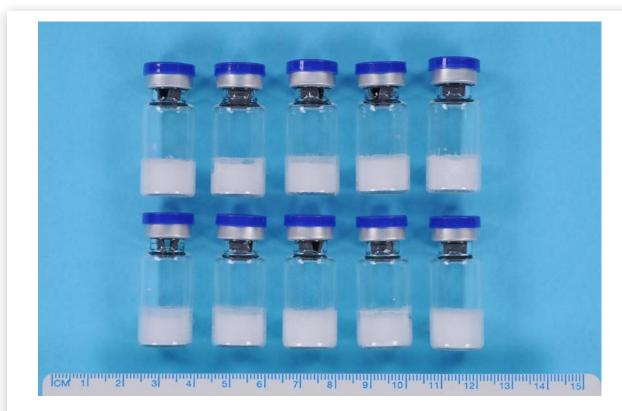


Figure 7. The vials from one of the boxes of alleged HGH. Note that they contain neither labels nor markings.

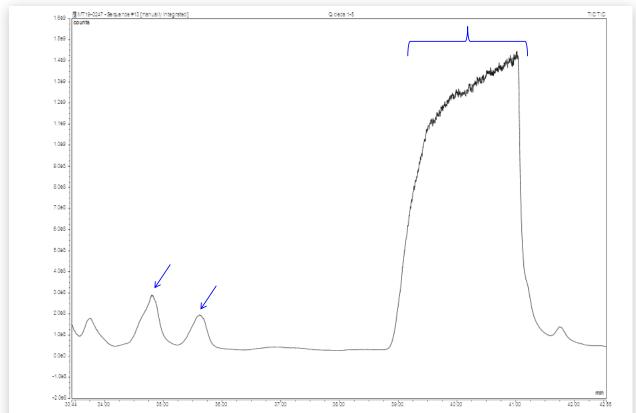
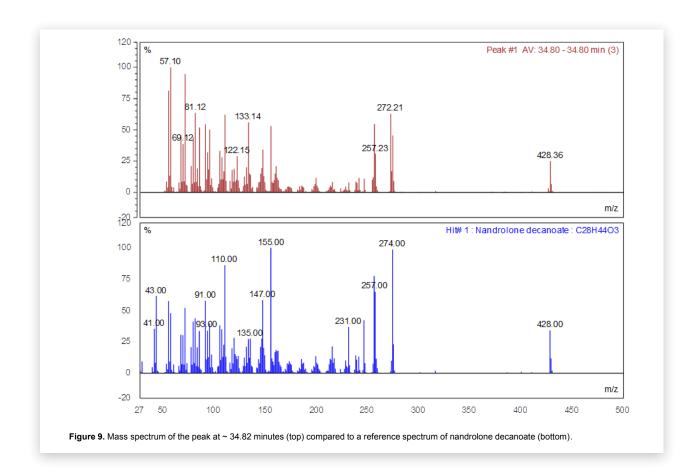


Figure 8. Total ion chromatogram of the alleged nandrolone decanoate sample. The peaks denoted with the arrows and bracket were all identified by their mass spectra as nandrolone decanoate. The broad shape of the third peak is due to the high concentration of the compound coming off the column over this time range. The other peaks in the chromatogram are other components, not nandrolone decanoate in the sample.

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Microtrace



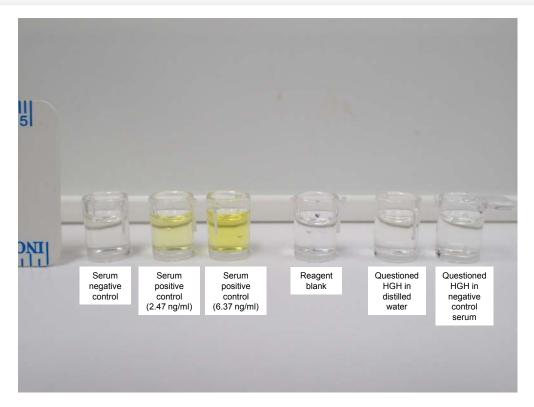


Figure 10. Results of the HGH ELISA test. Each well represents a different standard, control, or sample. From left to right: serum negative control, positive control of HGH (2.47 ng/ml), positive control of HGH (6.37 ng/ml), reagent blank, questioned HGH in water, questioned HGH in serum control. A yellow color indicates a positive result. The absence color in the two beakers containing the colorless solutions at the far right indicates the absence of HGH in both of them.

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Microtrace

About Digital Citizens Alliance

The Digital Citizens Alliance is a nonprofit, 501(c)(6) organization that is a consumer- oriented coalition focused on educating the public and policymakers on the threats that consumers face on the Internet. Digital Citizens wants to create a dialogue on the importance for Internet stakeholders— individuals, government, and industry—to make the Web a safer place.

Based in Washington, DC, the Digital Citizens Alliance counts among its supporters: private citizens, the health, pharmaceutical and creative industries as well as online safety experts and other communities focused on Internet safety. Visit us at digitalcitizensalliance.org

About GIPEC

GIPEC is a cyber intelligence company that uses patented tools to investigate the deep web and social media. To learn more about GIPEC visit www.gipec.com

