

THE GROWING MIND

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Is Vaping Bad For Your Teen?

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and
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REMEMBER THE “Big Tobacco” scandals of the 1990s? For about 40 years, the tobacco industry had been successfully fighting off lawsuits, claiming that no definitive evidence linked smoking to addiction and cancer. Then internal memos revealed that companies had known for decades that their product was both addictive and carcinogenic. Since then, they have been losing lawsuits as a result of knowingly and deliberately misleading the public about the health hazards of smoking.

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Today, no-one doubts that cigarette smoking is dangerously unhealthy. It remains the leading preventable cause of death in the US, mainly from heart disease, stroke and lung cancer. As a result, smoking rates have fallen in North America, with use among youth in particular decreasing from 28.8% in 1976 to 5.5% in 2015. Ask your child if smoking can kill you, and they will easily answer “yes.” That clarity of understanding is a public health win.

What is not a public health win? The fact that while smoking rates continue to decline, vaping has been on the upswing – so dramatically, that the US Surgeon General recently referred to youth vaping as an “epidemic.” In 2010, 1.5% of youth were vaping. In 2017, that figure was up to 13%.

That’s a 767% increase in adolescents who vape – and that doesn’t include 2018 and 2019.

Why are youth more inclined to vape than smoke? For many reasons, including that most believe it does no harm. Ask your child if vaping leads to serious health conditions, and they will likely answer “no” or “I don’t know.” As with cannabis consumption, most adolescents just don’t understand the risks. As a result, vaping is much more socially acceptable among teens than smoking.

Is vaping bad for your teen? They may not think so, but the answer is yes. Absolutely and without a doubt.

WHAT'S THE ATTRACTION OF VAPING?

If you were told that the “pod” inside a Juul – the company that currently holds about 70% of the market share – releases an aerosol that enters the lungs unfiltered, delivering nicotine mixed with a host of harmful chemicals and ultra-fine particles,

your first thought would likely be, “that’s not good.”

And you would be right. But teens do not have that same reaction. Governments, not-for-profit organizations, schools and health crusaders led the way when it came to anti-smoking education. And we listened. But we do not currently have a similar lineup of heavy-hitting anti-vaping influencers and education campaigns.

In addition to not getting the clear and direct health information they need, teens are subjected to the same marketing tactics that Big Tobacco used to hook smokers. To no-one’s surprise, the tobacco industry is increasingly buying up vaping companies,

such as Blu, as well as creating their own products. In addition, there are independents like Juul on the market. Whatever their corporate model, they all know the marketing tricks: use celebrities, push images of sexy and glamorous models, sponsor sports and music events, offer fruit flavours, and use cartoons like Blu’s “Mr. Cool” – young, hip, and unabashedly a vaper.

Our youth don’t really understand what’s wrong with vaping – or “juuling” as it’s sometimes called. Plus, it’s got that cool factor: modern, technologically innovative, sleek designs with available decorative skins, a menu of flavours, no “ashtray” odour, and illegal under the age of 19. Yes, the same



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Is vaping without nicotine safe?

NO, IT'S NOT. First, in a recent study, 60% of non-nicotine vaping pods were found to contain nicotine. This is not a well-regulated industry, so you can't know exactly what you're inhaling. Second, the non-nicotine ingredients include volatile organic compounds (VOC), known carcinogens, and toxins associated with respiratory disease and heart disease. Some even contain insecticides and formaldehyde. Basically, inhaling chemicals can never be deemed safe.

legal status as alcohol is a draw for many teenagers: it's not really bad, just a bit edgy.

Juul claims its product is positioned as an alternative to cigarettes for "adult smokers." In fact, the company says this: "We share public health concerns about protecting the health of young persons. We did not create JUUL to undermine years of effective tobacco control, and we do not want to see a new generation of smokers." But what about a first generation of vapers?

Juul has suspended the sale of fruit-flavoured pods in the US but not in Canada. The company has responded to pressure from the FDA to cease selling all flavours in American retail outlets except mint, though fruit flavours can still be purchased online. Here in Canada, with no government agency currently leaning on e-cigarette manufacturers for offering a product that attracts underaged users, Juul and others continue to sell sweet flavours.

That doesn't sound like a commitment to protecting young people. It sounds like a commitment to attracting smokers and non-smokers of all ages. And starting young is good for business: research tells us that the younger a person vapes, the more likely they are to become lifelong nicotine consumers. With the cigarette market shrinking in North America, Latin America and Europe, there is opportunity to increase sales of alternative nicotine products in these regions.

Big Tobacco is becoming Big Vape, and it wants our youth as its customers.

In sum, here is why the same teens who understand the dangers of smoking are attracted to vaping. There is the initial nicotine high, though it fades once addiction sets in. It's new and cool, with devices that look like flash drives and can be charged in a USB port. It has fun colours and flavours. It doesn't make you smell bad.

It's illegal but can easily be hidden from parents. And most of all, teens believe that it's not really harmful.

The truth is that vaping is far from safe.

VAPING MAKES US SICK AND ADDICTED

There is no doubt that vaping is harmful to teens' physical, mental and emotional health. Here are the facts.

1 Addiction

Like cigarettes, vaping devices offer nicotine, a highly addictive chemical. On first use, nicotine makes a person feel tempo-

rarily elated and energized. Over time, a tolerance is developed and higher concentrations are needed to achieve the same desired effects. With this continued use comes an addiction, characterized by withdrawal symptoms like dizziness, headaches, nervousness, anxiety, difficulty concentrating and sleeping, and feelings of depression.

Given the high concentration of nicotine in most vaping devices, addiction can be quick. It then becomes very difficult for teens to manage the side effects of withdrawal. Many report beginning to vape as a release from anxiety and stress, not realizing that nicotine eventually increases those sensations rather than relieving them.

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VAPING THE BIG QUESTIONS

How do I know if my teen is vaping?

THIS CAN BE TOUGH. The tools used are discreet and easy to hide – they may look like a pen or a USB flash drive. Plus, vaping can be odourless, though you may smell something sweet like fruit or bubblegum. A teen could vape in their room without a parent detecting it. Mainly, you would look for signs of nicotine addiction: irritability, anxiety, difficulty concentrating, restlessness and depressed mood. Also, frequently leaving a family gathering to be alone could be a sign.

This is how nicotine can become both a physical and mental addiction, offering the illusion of easing mental and emotional pressures while actually worsening them.

2 Disruption to brain development

In addition to creating both physical and emotional dependency, nicotine has been shown to harm adolescent brain development. The teen brain has not completed its growth, with the prefrontal cortex in particular still maturing. That's the area responsible for executive function and attention: being able to focus, organize and plan, initiate and finish tasks, regulate emotions, and monitor one's own progress and internal state.

Consuming nicotine during adolescence creates attention and functioning problems while also increasing the risks of developing psychiatric disorders and cognitive impairment later in life. The teen brain is more sensitive to nicotine than the adult brain, with addiction acquired more quickly and with fairly low exposure. Given that vaping products tend to offer a higher concentration of nicotine with a faster absorption rate than cigarettes, it's no surprise that teens become addicted so quickly and suffer more cognitive damage than adults.

3 Links to disease

Vaping devices release an aerosol deep into the lungs that, according to the FDA, contain "detectable levels of known carcinogens and toxic chemicals." In addition, the chemical profile of e-cigarettes and tobacco cigarettes overlap in some areas, sharing ingredients that lead to chronic diseases like bronchitis, emphysema and heart disease. Because vaping releases volatile organic compounds (VOCs) and airborne particles into the air during exhalation, second-hand vapour is also considered harmful.

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VAPING THE BIG QUESTIONS

What should I say if I suspect my teen is vaping?

BEFORE YOU SAY anything, get the facts. Be sure you understand the health risks, whether nicotine is involved or not. If you use tobacco or vaping products yourself, be honest with your teen about the risks, your regrets, the difficulties of addiction, and the health consequences. You may also want to share the difference between how you felt when you started (excited, energized, rebellious) and how you feel now.

AIM TO HAVE an ongoing, open dialogue rather than a formal meeting or delivering a lecture. Have several conversations whenever an opening arises, such as when you see someone vaping. Ask questions about what your teen knows. Be curious and listen closely. If they admit to vaping, stay calm and focus on the activity, not their personality. Ask if they think they are addicted. Let them know there are ways to break free. If you can tell they have bad information, give them some reading materials.

KEEP THE CONVERSATION going. Let it naturally pick up and drop over time. Avoid heated arguments or passing judgment. Encourage your teen to talk to any trusted adults, such as a teacher, guidance counsellor, coach or relative. You can also share your concerns with an adult your teen respects and ask for their help. Most of all, let your teen know that you love them and want them to be healthy. Research tells us that, despite how it sometimes looks, children really do listen to their parents and internalize their messaging.

One particular toxin called diacetyl has been proven to cause what is commonly known as popcorn lung. Diacetyl damages the bronchioles, the lung's smallest airways, causing them to scar and narrow. This leads to wheezing, shortness of breath, difficulty breathing deeply, exhaustion and persistent irritation of the nose, mouth and throat. A 2015 study of e-cigarettes found that 39 out of 51 tested brands contained diacetyl. It's added to the "e-juice" in flavours ranging from vanilla to caramel, coconut, cinnamon, and many others.

To recap, nicotine addiction for youth is swift and dangerous. It intensifies mental health challenges such as chronic stress, anxiety, nervousness, depression and others. It disrupts the development of the brain, leading to permanent cognitive damage. And the vapour contains known carcinogens as well as chemicals linked to heart and respiratory disease.

ADOLESCENCE IS ALREADY HARD ENOUGH

Introducing nicotine and managing an addiction makes it a lot harder.

Adolescence is a time when both emotional and cognitive control are low, leading to impulsivity, risk taking and peer-influenced behaviour. It's also more difficult at this stage of life to focus, plan ahead, complete tasks and understand the consequences of choices. Last, teens are especially vulnerable to mental health disorders. Introducing nicotine, addiction and toxic chemicals into the mix gives this exciting, creative and impassioned time of life the potential to turn darker and more dangerous.

Some teens report using vaping to manage stress in their lives – which is a reminder to parents and teachers that

adolescent stressors are complex and real. As always, the best coping methods are those that improve rather than undermine health: positive peer relationships, healthy food, regular exercise, sufficient sleep, balance between school work and downtime, and close connections to caring adults.

Parents can help by talking about the dangers of vaping with their children, sharing accurate information in a calm and non-judgmental manner. Remember, the vaping tool and the addiction are the culprits here, not the child. It may also help for adults to emphasize something that teens greatly value: their independence. While

vaping may feel like a form of personal expression, addiction is actually a loss of personal freedom.

Education campaigns worked to lower cigarette smoking across all age groups – and they can work again. As the US Surgeon General recently said, "Studies show that youth, like my son, have no clue what's in these products most of the time." That needs to change.

Big Vape is big business. Let's work together to keep Juul, Blu and every other supplier out of our kids' wallets, lungs, heads and hearts. ■

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VAPING THE BIG QUESTIONS

What is CDS doing to educate students?

WE SPOKE WITH our Senior School students about the dangers of vaping this year at an Assembly, including video and testimonials from medical experts. Additionally, the health risks associated with vaping have been addressed in all Physical Education and Health classes and during morning Advisory sessions.