

We know about the dangers of vaping, but what about hookah smoking?

Welcome to SBH Bronx Health Talk, produced by SBH Health System and broadcast from the beautiful studios at St. Barnabas Hospital in the Bronx. I'm Steven Clark.

For the uninitiated, hookahs are water pipes used to smoke specially made tobacco mixtures that come in a wide variety of flavors. Historically hookah is deeply rooted in a cultural tradition that has been present among Indian Persian Turkish Egyptian and other middle-eastern families for centuries. From a practical perspective, the hookah works by passing charcoal-heated air through the tobacco mixture and ultimately through a water-filled chamber the user that inhales the smoke through a tube in a mouthpiece. For years high school and college students in particular have congregated at hookah bars to socialize with friends. Hookah smoking was always perceived as a safe alternative to smoking cigarettes or marijuana, but that's not the case according to our guest Dr. Angela Regina, an emergency medicine physician and medical toxicologist at SBH Health System. Right Dr. Regina?

Thank you for having me.

So I know as I was mentioning to you before when my kids were in high school 10 and 15 years ago we always thought hey they're going to a hookah bar or they're gonna smoke hookah that's pretty tame that's safe but that's not the case right?

Absolutely, there was at one point because the tobacco smoke is filtered quote unquote through this water filled chamber there was a belief that the impurity is the tar of nicotine everything like that would actually be filtered and it is safer and that's definitely not what we're finding. We're getting more data that smoking hookah not only leads to the same manifestations as tobacco and other pipe smoking etc. cancer being the large one but a bigger concern that we're seeing now is carbon monoxide toxicity from the smoking hookah.

Clinically are you seeing the after-effects of this in the emergency room?

Absolutely. we've actually had quite a bit of young people in their 20s, 30s, even teenagers presenting what we call the neurotoxic effects of carbon monoxide smoking directly related to their hookah smoking.

What does that look like in layman's terms?

Absolutely it can range carbon monoxide in of itself we associate with the winter with faulty heater is because carbon monoxide is generated with the incomplete burning of a coal product or carbon product so what we're seeing with the hookah smoking is the incomplete combustion the incomplete burning of that coal and of that nicotine product that tobacco product and generating carbon monoxide so at low levels carbon monoxide poisoning will look like the flu. You may feel unwell, you may have a bit of a headache, some nausea, as the concentration increases you can see neuro which is the brain and cardiac which is the heart manifestations so it's significantly higher levels you can have seizures you're gonna syncope which is passing out you can have strokes and heart attacks and we've seen a fair amount of patients coming in again, young people without any past medical history with seizures after being at the hookah bar.

Wow, is this an effect that takes a while to build or can it happen after one night at a hookah bar?

Absolutely, it can happen at one night, could have no past medical history, could be at a hookah bar and experience a seizure or a syncopal episode which is passing out and we have

some data showing that it is from the carbon monoxide we have levels of the carbon monoxide in their blood that's elevated to three times from normal.

I guess as a toxicologist this is something that you look for now.

Absolutely. Being an attending here and having my residents that I teach every single patient now we should always do a proper social history. We should be asking about tobacco alcohol etc. Sometimes we forget about the vaping, about the hookah, but with certain clinical manifestations we should be specifically asking if they're even if their chief complaint was any way associated with hookah use in the last 24-48 hours.

Do you find that hookah smoking is as deleterious as vaping?

It's difficult to say because I don't think they have any comparison data out right at this point. We're definitely not seeing the pulmonary effects that we are with vaping. The pulmonary issues are much more severe in one way than the carbon monoxide toxicity is that we're seeing with hookah so they're kind of different clinical manifestations that are an end organ damage and right now there's no link between the two and there's no comparison between the two.

I read somewhere that there were four times as many hookah bars in New York City in 2017 there were five years before and at that point the city sort of cracked down on them in terms of regulating the age of their patrons to 21 or selling hookah products to people under that age. Has that made a difference?

I don't think so. At this point it's absolutely popular. You can walk down the block right here on Arthur Avenue and I can probably either buy a water pipe or go to a hookah bar at least five different establishments. Raising the age of consent is a start, but there will always be those that are able to get into the bars versus just purchasing a water pipe and smoking in the privacy of their own home. So it is absolutely a start, but I don't see a major difference yet.

I understand that the FDA delayed its oversight of the labeling advertising promotion and distribution of hookah to back up until 2021 so there's no federal oversight of these products as we speak.

It doesn't surprise me. I would have to look into more of the data and all of that to be more specific on that but it doesn't surprise me and the percentage of young kids who smoked hookah was extremely high according to these numbers from 2008 to 2016 the number of middle school kids these are kids I guess 12, 13, 14 year olds double 25.6% and high school students to sixteen point four percent.

Absolutely. I actually have data the CDC does monitoring the Future survey and in 2010 it was estimated at 17% of high school boys and 15% of high-school girls admit to smoking hookah in the past year. With that prevalence rising once they reached college age to 22 and 40% respectively and the American Lung Association in 2017 estimated at 2.6 million adults were using hookah with the retire among men than women so it's absolutely a popular pastime and I wonder with the awareness people have of vaping that hookah has suddenly sort of been overpassed and forgotten as being potentially dangerous?

Absolutely. You'll hear in the lay media at least once a night about ivali the electronic cigarette and vaping associated lung injury that's come into the popular vernacular but the risk of carbon monoxide toxicity from hookah I have not seen the same lame media presence so what I don't believe a lot of teens and young adults know the risk that they're there coming into contact well.

I guess like vaping they come in kid-friendly flavors like strawberry and vanilla and tropical fruit and tutti-frutti.

Absolutely. That's one of the big draws. There are statistics of why people use hookah and one of the largest reasons other than being a social pastime in a bar and a lounge hanging out with friends is they come in flavors than they like watermelon apple cinnamon etc.

I know it's called shisha, right the tobacco or the or though I guess it's horrible substances if it doesn't include tobacco free it's still not a good idea to smoke?

Absolutely because you're still burning a carbon material through this pipe and you're still able to generate carbon monoxide it's not necessarily a byproduct of just tobacco are there certain people who cook as smoking is particularly dangerous for in the realm of carbon monoxide toxicity if we're discussing aa house fire or if we're discussing a faulty generator it's usually children because they have a high breathing rate but we're not expecting a child to be using hookah so men female variation to my knowledge hasn't been a big difference if you have like asthma something else oh yes that asthma any pulmonary past medical history you absolutely can get any clinical manifestation just like you're smoking tobacco so you may have an asthma exacerbation you may have other breathing problems but as far as carbon monoxide toxicity is concerned I don't believe there's any difference between male and female. If you overdo I mean if you really I don't spend hours in a hook a bar at one time and you're really breathing in is carbon monoxide could it be lethal?

Absolutely I to my knowledge there hasn't been any documented cases of deaths primarily attributed to hookah but absolutely if you're in an enclosed space like a bar smoking the hookah for hours on end you can reach a lethal point of carbon monoxide toxicity although I would believe you would either experience a seizure or pass out first and then EMS would be contacted and brought to that our health care professional so you may be able to prevent the lethality by having a toxic syndrome to begin with when you tell people in the emergency room patients well the reason you're here is because of the hook is smoking are they in disbelief are they surprised they had no idea the ones I've seen personally have no idea they thought it was a safe alternative some of even told me no the water and the water pipe filters everything out so it's still not a common knowledge that this is occurring and even some medical professionals are not aware of the association. We've had young healthy patients in ka Peyser pass out and that that question of did you smoke hookah wasn't addressed so after being consulted myself or just seeing them in the emergency department that question it was asked and answered and even the medical professionals weren't as well versus some of the toxicologists so that's really a box that you checkoff when you find that somebody has a carbon dioxide. The hookah smoking is up high on that list right yeah especially among the young people and if they haven't come from a fire or especially if it's in the summertime cuz classic carbon monoxide toxicity is often associated with the winter indoor heating appliances

or faulty generators do you think parents are aware if they're if they give their kids sort of the opportunity or they encourage them to smoke hookah considering what else they could be smoking I don't think parents have any idea if the 20-something year old using doesn't know I don't think their parents will know either and I think that's a large portion due to that the lack of lay media presence on this topic.

Well hopefully you can change that. To wrap things up I want to discuss certain things with you and just tell me fact or fiction that's Kerry hook is smoking is not addictive.

Fiction. If tobacco is involved in nicotine because nicotine as we know is very addictive.

Okay the water and hookah smoke filters out harmful ingredients.

Fiction 100%. okay so good luck if you think that's gonna make it exactly that's been shown definitely to be fiction it to be false tobacco free hookah safe no fiction for sure you can still generate the carbon monoxide it's still a pulmonary or a lung irritant so if you have asthma or any other lung problems you can still be irritating yourself and leading to illness.

Cigarettes burn the lungs because they use heat and hookah smoke is cooler so it does not burn.

Interesting, I haven't heard that one. But I'm gonna say it's fiction.

Last one. Hookah is only bad for children and teens.

No. You can have at any age. Carbon monoxide toxicity doesn't preferential your age so you can become ill whether it's from carbon monoxide toxicity or the other deleterious effects such as potential for cancer and other pulmonary issues it doesn't matter your age. Of course it's worse in younger because they're still developing but I would say age is just a number I know but older people who may have more compromised health it would also affect

Absolutely could you see more obviously COPD and emphysema in the older population so absolutely worrisome for that population as well.

Okay well Dr. Regina thank you very much for joining us on SPH Bronx Health Talk. I think this is an important subject

Absolutely and thank you very much for having me and getting this information out there which it should be great

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