The Future of Marijuana Smoking using a Filter!
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The urban myth that filters remove the THC has influenced many away from considering this basic protection. Pipes and bongs have become the norm for smoking marijuana which allow unacceptable amounts of harmful smoking residuals (heat, TAR, burning particulates and ash) to be inhaled. This information is beneficial for all marijuana smokers but extra consideration should be given by those who use marijuana for medical reasons and want to reduce the health impact of smoking. Let’s examine the evidence together.

Does marijuana smoking cause health damage?

Some activists are stating that smoking marijuana is not bad for you and they will fight tooth and nail to defend this. They don’t want negative statements about smoking marijuana. I understand this but we must live in reality; harmful smoking residuals, including burning particulates, entering the mouth, throat and lungs are not good for us. Recent study results which state that smoking marijuana is not causing lung cancer did not say there was no damage caused from smoking.

Many marijuana smokers have chronic bronchitis symptoms, wheezing, coughing, sore throats, lung discomfort and some are hacking up black phlegm. Tobacco smokers who also smoke marijuana have increased risks of respiratory diseases including lung cancer. Marijuana only smokers are experiencing varying levels of respiratory damage relative to their usage levels and predisposition, many coughing throughout the night.

Laboratory testing shows TAR (Total Aerosol Residue) in unfiltered smoke to be 2 to 3 times higher than filtered smoke. Marijuana smokers are inhaling huge amounts of TAR due to the unfiltered smoking. There are other dangers besides TAR to consider. In addition to the TAR you have burning material, intense heat and ash being inhaled.

This is the point of our discussion here, the dangers of unfiltered smoking, not the good parts of marijuana. Marijuana contains elements which help fight cancer. Researchers suggest this may be the reason why we don’t have a lung cancer problem with marijuana only smokers even though carcinogens are produced and inhaled when smoking marijuana. Clearly, there is health damage which occurs from unfiltered smoking residuals being inhaled; this includes extreme heat and burn damage which we will discuss next.

Heat and burn damage

The heat entering the mouth when using handheld portable type smoking devices is severe. Some tobacco pipe smokers get cancer of the tongue and throat due to the carcinogens and/or burn damage. Pipe smokers are recommended to draw slowly to reduce heat and move the mouthpiece around so as not to burn the same spot on the tongue repeatedly possibly leading to cancer.

A small filter significantly reduces heat and burn damage due to the drastic reduction of burning particulates. In addition, smokers must adjust their technique by learning to draw slowly thereby reducing heat entering the mouth. Do not get fooled into thinking that reducing the temperature further is desirable. The issue of cooling the smoke is a challenging one, because, when you cool the smoke too much, vaporized desired elements return to their liquid or solid state and don’t make it to the user’s lungs. This may be one of the key problems with water filtration type devices discussed later in this article.

Traditional tobacco pipe smokers draw slowly and do not inhale. Marijuana smokers draw harder and inhale deeply substantially increasing the heat and harmful elements entering the mouth, throat and lungs. This puts unfiltered marijuana pipe smokers at much greater risk than unfiltered tobacco pipe smokers.
Smoking methods

Handheld Portable Smoking Devices:
Glass Pipes, Metal Pipes, One Hitters, Chillums, Bats, Sneakatokes, whatever the name, they have two things in common; they are too small to effectively cool the smoke and provide no filtration. A screen is sometimes used, but only reduces the size of burning particulates by a small margin. The amount and type of harmful smoking residuals inhaled varies greatly depending on the type of device used, draw power, technique, etc. For instance; in unfiltered pipes, smoking the material to the bottom of the bowl significantly increases the burning particulates and ash inhaled compared to smoking only the first half of the bowl. In these types of smoking devices users inhale nearly all residuals.

In Europe It is common for tobacco pipes to have replaceable filters, some remove moisture only and others remove particulates. In the US, tobacco pipe smokers are resistant to using filters and even have accessories available to bypass the filter in European pipes. Some state that filters do no good, make it difficult to draw and that taste is compromised. The truth is, any issue with bad taste or difficulty with draw is due to the user not changing the filter! When using a clean filter, the aroma and taste from your favorite Tobacco or marijuana is enhanced due to the reduction of heat and burning particulates entering the mouth. Your taste buds can't function correctly when they're being burned. Smokers who change their filters often, report better flavor with a filter.

Bongs and Waterpipes:
Water filtration was instituted to reduce heat and burning particulates. Gaseous bubbles passing through water is not true filtration. A more appropriate term is "water scrubbing" since only the particulates at the outer edges of the bubbles have the possibility of being removed. Water is very inefficient in removing burning particulates, TAR and ash from within the bubbles, providing limited reduction prior to inhalation. Laboratory testing shows water scrubbing removes vaporized THC and CBD more readily than TAR or ash. In a dark room you can actually see sparks passing through and inhaled by smokers using small water scrubbing devices such as standard bongs and handheld devices with water chambers. Larger more efficient water scrubbing devices which utilize more bubbler and diffusers do a better job of reducing burning particulates and heat, but results in an even greater loss of THC with less removal of TAR and ash. You inhale more TAR and ash using a water scrubbing device to achieve your targeted level of desired elements than when smoking with a rolled joint. This comes as a shock to most. The intent was good, just not the results.

Just for a moment, let’s leave the issue of filtration. I would be remiss in my obligation to smoking health risk awareness if I did not include the following: Most smoking devices are not cleaned often or thoroughly enough resulting in serious mold & bacteria concerns. The solution is a smoking device design, including the properties of the material used, which can be easily and thoroughly cleaned, and utilize simple visual inspection verification technology. Not being able to see inside makes it easy to ignore this serious danger. Clear glass is the best smoking medium for this and many other reasons. The PerfectPipe® provides an easy and thorough cleaning system to combat this serious health concern. Now back to filtration.

Roll your own - Joints:
Research actually shows the Rolled Joint has one of the highest THC to TAR ratios of smoking methods they tested (of course they did not have the PerfectPipe® to test); meaning that you inhale less TAR to achieve your targeted level of desired elements. The reason for the higher THC to TAR ratio is because some amount of TAR was filtered out by the herb that it must pass through, with minimal loss of vaporized THC! The herb and paper work like a crude filter reducing smoking residuals, and most of the ash falls away. Handheld portable smoking devices came in second, only due to the complete lack of filtration resulting in significantly higher TAR. Using a filter in a Rolled Joint has some problems discussed later in this article. But, the Rolled Joint does provide much more protection than other popular smoking methods used today. Of course, with a joint, you are inhaling burned paper residuals with their associated risks.

Improving marijuana smoking methods to reduce health risk:
As a baseline it is necessary to understand that individuals normally regulate their marijuana smoking based on achieving their targeted level of desired elements. Therefore the answer lies in; Reducing harmful smoking residuals (including eliminating paper) while delivering high levels of desired elements. This results in reduced inhalation of harmful residuals and reduced amount of smoking. As discussed above, the rolled joint does offer some limited filtration while delivering high levels of desired elements. Can a simple filter do better? Yes, it actually does!
The Filter

Feedback from marijuana smokers using the PerfectPipe® with a filter report receiving higher levels of their desired elements while using significantly less herb, dispelling the myth that filters block THC. Part of the reason is due to the scientifically designed burning chamber (bowl), which extracts and preserves more of the desired elements to the user, assuming that the user does not hold the flame to the material while drawing and inhaling killing all the THC. The main reason THC passes through the filter easily to the user with minimal loss is because the filter is in a new unused state and the temperature of the gases are not reduced low enough to cause THC to settle out into resin easily. Not changing the filter when needed will result in increased THC loss and loss of protection. The filter must be changed with every bowl of use to be effective. If people can receive their needed level of desired elements while utilizing filter protection, would this not be sufficient reason for marijuana smokers to seriously consider the benefits of using a filter?

What about using a filter when rolling your own? It certainly will reduce particulates, but will also result in high THC loss and filter clogging due to the increased temperature drop. As stated above, the temperature of the gases passing through the filter must be kept high enough to prevent THC from returning to resin. This could actually be the reason how the Myth of filters blocking THC got started, because the smoke cools down too much by the time it gets to the filter resulting in large amounts of THC resin clogging the filter. Adding a filter to a Rolled Joint is not the answer.

Pipes and other smoking devices that provide little to no protection are the main health concern here and are widely used by marijuana smokers today. The popular use of these unfiltered devices is causing widespread harm. A simple filter significantly reduces burning material and particulates inhaled by the user. This is the overwhelming reason to use a filter when smoking! Look at this filter after just one bowl of use! This is from a relatively small amount of herb when compared to most bowl sizes used today. Just imagine how much is being inhaled by ones using large bowls with little to no protection.

To protect our health we must do our part. By following the “Golden Rules of Smoking Smarter” cannabis smoking patients can significantly reduce respiratory harm.

Golden Rules of Smoking Smarter with the PerfectPipe®
1) Draw gently (short puffs work best) when lighting - Remove Flame Quickly! - Fire Kills THC!
2) Draw Slowly!
3) Change Filter with Every Bowl!

The filter size, density and material used are important factors to consider. Utilizing a short filter helps to minimize loss of desired elements. Roll your own filters are made with cellulose acetate and were developed using the “draw level” method to set the specific level of filtering resulting in approximately 50 micron filtration. Some wonder about using cotton filters. You certainly can purchase and use cotton filters if you wish, they are available. Our testing of cotton filters provided very bad results; they draw too hard and clog almost instantly due to cotton’s absorbent properties. If you use loose cotton packing, which some manufactures have attempted in their smoking devices, you don’t get the level of micron filtering required to block the burning particulates and ash. Cotton’s absorbent properties also present concerns of removing high levels of desired elements. We are working with companies testing and developing improved filter technologies which maintain the beneficial micron filtration while moving towards all organic elements.

Most smoking devices can benefit from measurable micron filtration. This can be achieved with new filtered products being brought to market or licensing of our patent pending design adapted to existing devices. The goal is to provide affordability and ease of use so that the majority can benefit from filtration protection.
Summary:

Now that we clearly understand how much harm is being done by today’s marijuana smoking methods, it is up to us to educate others and practice smarter smoking ourselves. To significantly reduce marijuana smoking harm, especially for medical marijuana patients, we must use filtration when smoking! Water Scrubbers are not the answer and today's pipes do not accept a filter. Rolling your own is a better choice providing some protection. The PerfectPipe® is now available to provide this needed protection. My hope is that more companies will add micron filtration to their products along with new designs being brought to market as awareness of this serious issue increases.

The PerfectPipe®:

The PerfectPipe® was developed to provide a reduced health risk solution for smokers in a simple user friendly design; and make it available to the masses at a low cost by utilizing automation technology. The filter changing is so simple that you will wonder why it was not thought of before. We welcome licensing requests and adaptation to existing smoking devices so as to provide this needed protection to as many people as possible. Filters are very inexpensive allowing users to benefit from using a clean filter with each bowl of use. PerfectPipe® filters are the highest quality filters available, but you can use any 8mm x 15mm “roll your own” filters available around the world. The PerfectPipe® is available online and in select dispensaries nationwide. Contact your local dispensary and ask them to carry the PerfectPipe®.

Additional health information available at www.theperfectpipe.com/health.htm

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