

Are Elequil aromatabs® effective when used in conjunction with masks?

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Aromapologie, LLC, is a consulting company that specializes in aromatherapy information and formulation that assists other business entities with providing accurate aromatherapy information and in the development of safe, effective aromatherapy products. Through education, training, and ongoing research, Lauren Bridges, BA, AdvDip Aromatic Medicine, Dip Aromatherapy and Founder of Aromapologie, LLC, is familiar with the current therapeutic standards of essential oil safety, how they interact with the body, and their chemical makeup and properties.

The COVID-19 pandemic has wrought changes across both medical and civilian populations in a short period of time. In the current atmosphere, new information is an almost daily occurrence, requiring medical personnel to adapt to unexpected and at times unanticipated changes to best serve those affected and fight the novel coronavirus (SARS-CoV-2). In the midst of all this, questions have been brought forth about the effectiveness of aromatic support as preventative measures in conjunction with mask requirements, have been implemented. The concern is that the barrier that masks provide to help prevent the spread of the virus might also inhibit human ability to experience the benefits aromatherapy has to offer.

The discussion presented here will show that there is no cause for concern in this matter.

Mask Effectiveness and Odor Penetration

The effectiveness of the various available masks is determined by what size particles they are capable of blocking. Currently, the N95 respirator is one of the most effective in blocking SARS-CoV-2 and is critical personal protective equipment (PPE) for use in hospital settings during this pandemic. Capable of blocking 95% of particles sizes of 0.3 μm (300 nm), the mask is able to filter viruses and other particles (Coronavirus Disease 2019 (COVID-19), 2020). In fact, the N95 respirator has been shown to be effective in blocking around 99.8% of particles that have a diameter size of about 0.1 μm (Bar-On, Flamholz, Phillips & Milo, 2020).

SARS-CoV-2 measures around 0.1 μm (Bar-On, Flamholz, Phillips & Milo, 2020) and can be filtered by these masks. This more effective filtering results from what is known as Brownian Motion, which demonstrates that particles less than 0.3 μm no longer travel linearly but instead in an erratic, random pattern. This allows for the smaller particles to be caught by masks that claim to filter larger particle sizes (Viswanath & Monga, 2020). It is worth noting that Brownian Motion will also exert an effect in trapping smaller particles for various kinds of masks and not just the N95 respirator, though this will be to varying degrees depending on the masks' capabilities.

But while Brownian Motion does allow masks to filter out smaller particles than expected, there can still be limitations. Smaller virions, ranging from 0.01 μm to 0.08 μm (10 to 80 nm) may slip through even the N95's filter and allow for viral transmission (Bałazy et al., 2006). This is significant, however, in

understanding why it is still possible to detect odor molecules through a mask. Odor molecules, such as those comprising essential oils as used in Elequil aromatabs®, are smaller than even the virions that have shown to slip through the N95 filter. For example, linalool, one of the main constituents of lavender oil, measures at 0.000827 µm. Menthol, the primary constituent in peppermint oil, measures at 0.000823 µm.

Safety

The use of Elequil aromatabs along with a mask for protection against SARS-CoV-2 would not pose any inherent safety risk to an individual. Observing basic aromatherapy safety considerations will allow for the safe and functional use of the product.

Visit www.beekley.com for safety related information.

Using Elequil aromatabs® in Conjunction with Masks

In consideration to the points above, Elequil aromatabs can be placed on both clothing and masks for a safe user experience. If lower exposure is the user's goal, adjusting the aromatab to minimum or setting it further away from the face would be ideal. If a stronger aroma experience is desired, it would be beneficial to adjust the aromatab to maximum and/ or place it on the mask or clavicle.

It is important to note, however, that individual preference and sensitivity can affect how Elequil is experienced, so product users should be prepared to make further adjustments to suit their individual needs.

For additional safety-related information, please visit www.beekley.com.

References

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