

## Toothbrushes Jacquelyn Hines

When looking for a manual toothbrush, there are many different options available. For example, there are such types as soft bristles, firm bristles, contoured bristles, pro-health, whitening, scented, deep clean, and cavity prevention. Main stream toothbrushes are typically made with plastic handles and nylon or nylon-polyester blends. Concerns exist due to repeated exposure to the toxicity from the plastic toothbrush head and bristles.

Plastic from the handle and head of the toothbrush can leach toxic chemicals directly into the gums and mouth, such as BPA, PVC, and phthalates. Nylon bristles have been reported by madehow.com to be man-made, strong, smooth, nonabsorbent, and quick drying. Lifewithoutplastic.com reported that nylon is a toxic plastic made from petroleum. Nylon bristles in some brands have been shown to contain BPA and, the very toxic, triclosan, as per ewg.org. Some companies use blue dye to coat the bristles that fade to white in a few months to alert consumers to purchase a new toothbrush.

Historically, toothbrushes were made with bamboo and bone handles with boar's hair or horse hair as bristles. Some companies are trying to mimic the first toothbrushes and have encountered issues such as ineffective cleaning, hygiene/retaining of bacteria, and animal hairs falling out.

Some alternatives include a patent pending toothbrush with silicon rubber bristles. On the market, there are already some made with rubber bristles, such as Shabbos, but this toothbrush still uses a plastic handle. A Brazilian designer has created an electric toothbrush that uses a sponge instead of bristles, but still utilizes a plastic handle and there are concerns since the sponge does not effectively clean in between teeth and crevices as bristles are able to do. The Environmental Toothbrush has a bamboo handle with BPA free bristles and is fair-traded and vegan friendly. Another sustainable option is German company that uses beech wood for the handle and pig hair for the bristles. (The pig hair is obtained from China). Additionally, there is a made in the USA company, called Preserve, which makes toothbrushes from recycled #5 plastic, uses nylon bristles, and is BPA and phthalate free.

Additional concerns include bacteria and virus buildup on toothbrushes. There are many Young Living essential oils, such as Thieves, Purification, Melrose, Lemongrass, Myrrh, Peppermint, and Clove, that can be used to combat this problem. Toothbrushes can also be soaked in a blend of these oils with distilled water, or in Thieves cleaner, spray, or mouthwash to eliminate these toxins.