

TEST Disappointments with sustainable toothbrushes

They have a bad taste and they are unhygienic. Bamboo toothbrushes disappoint in Politiken's test of six environmentally friendly toothbrushes. A toothbrush made of recycled plastic is rated best.

KATRINE NADIA JØRGENSEN

Plastic toothbrush is best and easiest to keep clean. That's the conclusion from Politiken's two test judges, after having cleaned their teeth with six different toothbrushes.

«The brush head is wide, dense and tastes good, and the brush has a proper grip», says Michael René, hygiene

expert at University College Copenhagen, after having rinsed his mouth after the test.

«The brush is good and dense, and the shape makes it easy to reach all parts of the mouth», adds Louise Thustrup from online magazine Sustain Daily, which focuses on helping its readers to a greener everyday life.

The test winner was bought at Matas for just under DKK 25 and is thus DKK 15 cheaper than the most expensive toothbrush in the test. The five competitors to the plastic brush are made of bamboo and what is common to Jordan's test winner is that they all are marketed as being environmentally friendly, more so than being particularly hygienic.

«Bamboo can withstand and prevent bacteria, which means the toothbrush is hygienically correct. In addition, bamboo is able to mimic the same healthy substances in the bacteria found in our mouths», writes Matas on their website about the test's most expensive toothbrush from the

Hydrophil brand.

The judges give the toothbrush a medium rating with three check marks, because the bristles started to come off already after the first use, and because the «taste of wood is completely off-putting» due to the «strange surface coating». In other words, it's a mixed experience that requires a thorough rinse after use. There is also a printed blue colour where the bristles are attached to the handle.

«If the toothbrush gets wet, there is a risk the blue colour will dissolve and get into the mouth», says Michael René and points out that the colour may be water-soluble.

The judges had the same concern when they tested the other bamboo toothbrushes. One of the most expensive and lowest rated toothbrushes is called Brush with Bamboo and it has an extremely unpleasant taste. The soft bristles bend down almost completely and the judges perceive it as though they were brushing their teeth with a flat piece of bamboo. Although hy-

giene expert Michael René agrees that products made of wood and bamboo are to some extent antibacterial, he has concerns about the dental hygiene.

Wet wood allows bacteria to grow

«It is correct that wood contains micro bacteria that offset bacterial growth. However, many of the toothbrushes are made of untreated wood, including this one, and if it gets wet, disease-causing bacteria or mould may start growing», he says, holding up the untreated bamboo toothbrush.

According to the description on the supplier's website, the handle is made of 100 percent wild and unsprayed bamboo and sustainably produced, and the brushes are primarily made from vegetable oil. That is revealed to the hygiene expert after the blind test is completed but does not mitigate his scepticism.

«Toothbrushes made from biological materials, i.e. plant-based toothbrushes, tend to rot and mould – just like food waste. The same



JORDAN GREEN CLEAN

Material: Recycled plastic with bio bristles
Price: DKK 24.95 at Matas



Michael René: The brush is wide, dense, has good taste and the handle has a good grip. It works really well, and the shape is perfectly oval and good to grip.

Louise Thustrup: The brushes are nice and dense, and the shape makes it easy to reach around in the mouth. I am confident that this cleans the best.



SUZTAIN ECO

Material: Bamboo
Price: DKK 20 at Normal



Michael René: Good feeling in the brush head, really good fullness and sufficiently long bristles that can reach around the cheek teeth.

Louise Thustrup: Reaches the teeth furthest at the back, and I like that the handle is stronger than many of the competitors. It is also an important advantage that it is taste neutral.



GO BAMBOO

Material: Bamboo
Price: DKK 19.95 at Helsam



Michael René: Good soft bristles, but with the blue colour it's outrageous to claim the product is environmentally friendly. It is also unhygienic. White brushes are preferable because they easily reveal dirt. Tastes of untreated wood, but the handle is too long compared to the brush head.

Louise Thustrup: The brush is too soft and loses its shape too fast, and the handle is a bit too small to get a good grip around. Pleasant taste of untreated wood. But the blue coloured bristles are a negative.

FACTS

What we did

Politiken asked two test judges to test six different toothbrushes made of materials that are marketed as sustainable, such as beech, bamboo, coconut fibre and rubber. They are all soft, as recommended by dentist Anders Byrel from Classensgade Dental Clinic.

The judges blind-tested the products and focused on functionality, hygiene and durability. They provided an overall rating between one and six check marks, where six check marks is best.

The test is a rounded average of the judges' ratings. If two products got the same rating, then the cheapest product was placed better in the test.

Michael René is a dental hygienist at University College Copenhagen and blogs about dental cleaning and hygiene at Pletvæk.dk.

Louise Thustrup is part of the management at Sustain Daily, a lifestyle magazine that guides consumers to more sustainable everyday life.



applies to bioplastic», he explains and emphasises that he can only guess how a toothbrush of natural material reacts with the mouth's own unwanted bacteria. That's why many manufacturers have chosen to use traditional nylon bristles instead of plant-based bristles. Toothbrushes of the Go Bamboo and Suztain brands both have nylon bristles, and the company selling the latter explains on their website:

«We have tested bristles of other materials, but durability and/or hygiene is just not as good (...)\», it says on Suztain's own website. Jordan's test winner uses biobased bristles, which

can increase the risk of bacteria accumulating between the bristles. «It is an advantage that the test winner's bristles are white, as it is easy to see when the toothbrush gets dirty», adds Michael René.

Wet toothbrushes can make you sick

Dentist Anders Byrel, co-owner of Classensgade Dental Clinic in Copenhagen, has not tried the various toothbrushes in the test, but he is sceptical about how the bamboo toothbrushes will react when they come in contact with teeth in need of cleaning.

«If the toothbrush and bristles are

HYGIENE. Toothbrushes should have white bristles, to make dirt immediately visible. That's best from a hygienic perspective, say the two test judges

Foto: Jens Dressling

wet for an extended period of time, then bacteria will form. Even if you don't get tooth decay, you may risk getting sick or getting stomach pain», says Anders Byrel, referring to a study showing that toothbrushes stored in the bathroom often contain a wide range of bacteria. He recommends that toothbrushes should be replaced after three months – regardless of whether they are boiled regularly.

Although the test winner is made of plastic, you can still buy it and have good, green conscience. That's the opinion of professor Henrik Wenzel from the University of Southern Den-

mark, who has been researching the lifecycle and sustainability of products for more than 30 years:

«The most sustainable toothbrush you can get is made from recycled plastic – just like this one. Even if you would dispose of it by burning it, it still has a lower climate impact than wood or bamboo, for example. Planting trees and bamboo plantations affects both wildlife and biodiversity in nature», he says.



HYDRO PHIL

Material: Bamboo
Price: DKK 39.95 at Matas



Michael René: No wooden taste due to the strange coating treatment. Mouth rinse needed after. The thick blue coating seems unhygienic. If the toothbrush gets wet, there is risk that the colour will dissolve and get into the mouth.

Louise Thustrup: The bristles are already loose, which is annoying. The wooden taste is a little weird. The colouring on the handle is disgusting and can get into the mouth when the toothbrush gets wet repeatedly.



BRUSH WITH BAMBOO

Material: Bamboo
Price: DKK 36 at ecoego.dk



Michael René: Extremely short bristles that flatten out too quickly. It also has a bad taste and seems to be made of untreated wood.

Louise Thustrup: Very bad shape. It is not pointed, which makes it difficult to reach around the whole mouth. The brush is too soft and flat, which made me chew directly on the toothbrush.



CROLL UND DENECKE

Material: Bamboo
Price: DKK 23.95 at Helsam



Michael René: It can't even clean the teeth. The space between the bristles is too big and there is not enough of bristles. They just bend down flat. The bristles are also of different height.

Louise Thustrup: Too much space between the bristles. It is too soft. The handle is short and is uncomfortable to grip. The taste of the bristles is unpleasant. You might as well not brush your teeth at all.