



Faculty of Dentistry
Te Kaupeka Pūniho
New Zealand's National Centre for Dentistry



Sugar in your diet: kino te pai!

A University of Otago and Te Kura Kaupapa Māori o Ōtēpoti joint project on the importance of healthy food choices and good oral hygiene



Te Ira Tangata 1.7



He tapu te tinana o te tangata. Nō reirā he mahi nui tērā, ko te whakako i te tamaiti ki ngā āhuatanga whakapakari i tōnā tinana, kia tupu ai tōna hauora. Kia mōhio te hunga tamariki ki ngā kai pai, ki ngā kai kino. Kia mōhio hoki ki te painga o te korikori tinana, o te mirimiri tinana, o ngā rongoā a Tane Whakapiripiri...

Te Reo Pākēhā interpretation

Te Ira Tangata focuses on the physical and spiritual endowment of children and the importance of nurturing both in their education. Kura Kaupapa Māori therefore:

- Respect the physical body and encourage children to pursue habits which guarantee personal health and well-being

‘He kākano i ruia mai i Rangitātea, e kore ia e ngaro’

Sugar in our diet

There are many types of sugar, and sugars are an important part of what we eat as they provide our bodies with energy. Several sugars are naturally found in sweet foods like fruit and honey. Other sugars are produced when our bodies break down starchy foods like bread, rice and potatoes. Starchy foods such as kumara were very important to our tipuna. However, many of today's processed foods and drinks such as breakfast cereals, sweetened drinks and desserts have a great amount of added sugars, which is putting an unhealthy sugar burden on our bodies.

Too much sugar in our diet can cause weight gain and obesity, heart disease, type 2 diabetes and tooth decay.

Ki tā Katerina Te Heikoko Mataira, ko te matehuka, mate manawa, te pēhi kino o te toto me te momona o te tinana, kei te patu kino i te hunga Māori. Nō reira, kia paku noa iho te kai huka, kia ngāwari hoki te kai mīti hinuhinu.

Mō te ora o te whānau ko ngā huawhenua me ngā amiami e tipu ana i roto i te oneone mōmona o tā rātou ake mārakai... ngā tino kai hei whāngai i te ora o ngā tinana.

‘Kai tika, oranga tinana; kai kino, he karanga mate’

Sugary drinks

Can you order these drinks from the least to the highest sugar content?



LEAST

1	_____	4	_____
2	_____	5	_____
3	_____		

HIGHEST

How to cut down on sugar?

- Reduce your intake of sugary drinks – fizzy drinks, lemonade, ginger beer
- Swap fruit juices for water and whole fruit
- Replace sugary cereals with plain porridge and whole grain cereals like Weetbix
- Avoid having ready-to-eat and tinned meals too often
- Eat fruit instead of sugary snacks or desserts
- Keep takeaway meals to once a fortnight



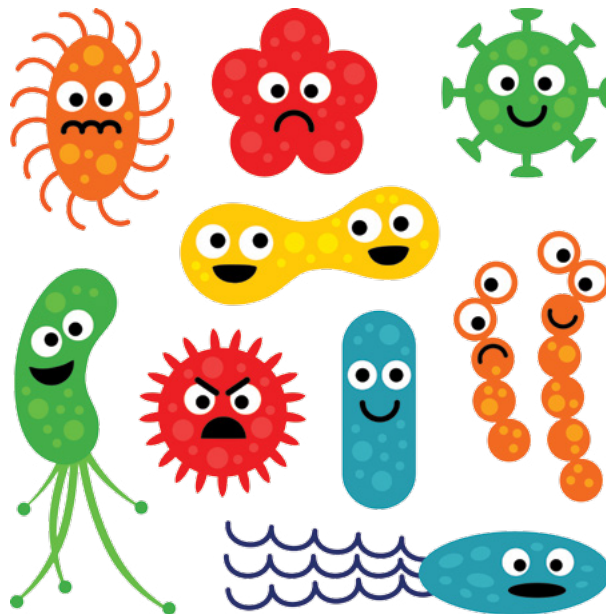
Our oral environment

Our bodies have huge numbers of microorganisms living in it and on it, including bacteria, fungi and other bugs. They can be found on our skin and in our gut and mouths, among other places. Some of these microorganisms help us digest food; others protect us against other microorganisms which cause disease. There are about 100 trillion bacteria in and on everyone!

In order to see and study the good and bad bacteria which live in our bodies, we need to take a sample using a clean cotton swab and spread it on a special agar plate which contains food for the bacteria to grow.



We know that too much sugar can be harmful, not only for our bodies, but also for our mouths. This is because some of the microorganisms in our mouths break down the sugars we eat and generate acids.



From sugar to acids

The bacteria that live in our mouths can break down and ferment the sugars in our food. They make acids in our mouth which can dissolve and weaken our teeth.

As well as acids being made by fermentation of sugars, many of the foods and drinks we consume are already naturally acidic. Sour and tart things such as vinegar, lemon juice, coke, pineapple and sour lollies can also dissolve our teeth over time. To know how acid or alkaline a substance is, we need to measure its pH value using a pH meter.



Some foods and drinks such as milk and water are neutral, while other substances such as baking soda are alkaline. Baking soda is added to some toothpastes as it can neutralise acid in our mouths and protect our teeth.

PH SCALE



How to protect our teeth

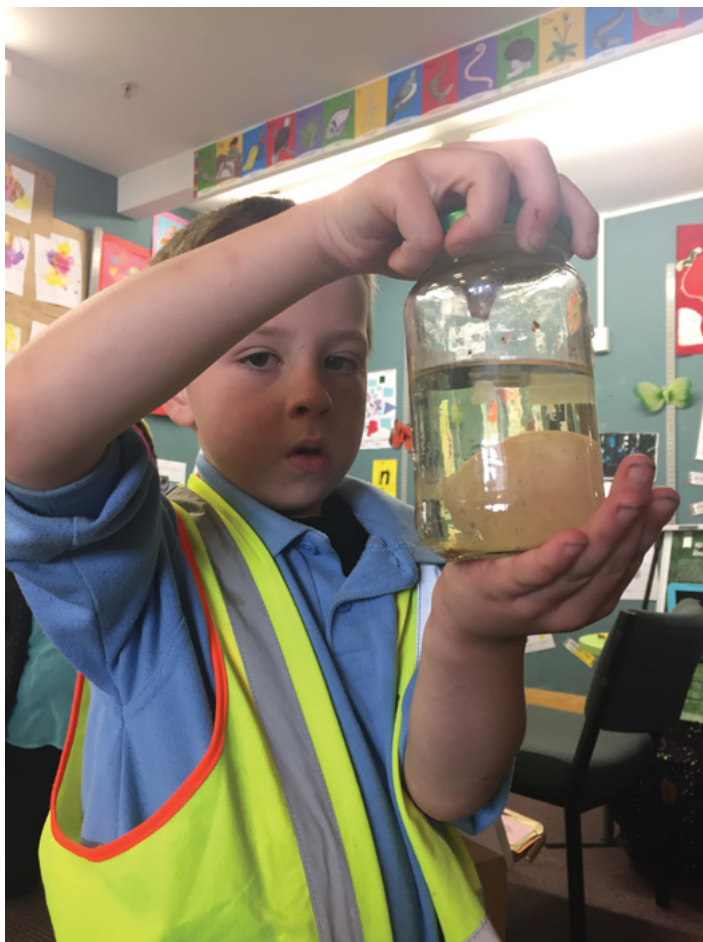
Because our teeth are made of minerals, they can be dissolved by acids – both the acids contained in what we eat and the acid produced by bacteria when fermenting sugars.

That's why when we soaked an egg in vinegar its shell dissolved away over time.

Fluoride in the water we drink and in toothpastes can help strengthen teeth and prevent decay.

That's why the vinegar did not dissolve the shell of an egg previously soaked in Fluoride.

Our back teeth have lots of grooves in them so food can get stuck there. That is why it is very important that we brush our teeth and use dental floss to clean between teeth. Sometimes a dentist or dental therapist will place a seal on our back teeth to keep them protected. They will use a special light to make the seal harden fast and last longer.



Who looks after our teeth?

We know it is important to brush our teeth at least twice a day with a fluoridated toothpaste to keep our teeth clean and healthy. However, sometimes our teeth and gums will become damaged and sore. Dentists and dental therapists need to fix holes in our teeth when they are small, otherwise they will get bigger, our teeth will become sore and they might need to be pulled out.

Dentists look after the teeth of adults, while dental therapists provide dental care for children and adolescents. We also have dental technicians as part of the dental team. They create instruments and gadgets to help dentists and dental therapists fix damaged or missing teeth.

When working with patients, dentists and dental therapists wear special equipment such as gloves to keep their hands clean, masks so they do not pass their germs on to you and mirrors and glasses so they can see our teeth better.

The Faculty of Dentistry, University of Otago, teaches dentistry, dental therapy and dental technology. Maybe we will have you as our student one day?



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SUPPORTED BY THE



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