MITOCW | watch?v=qfMHRcpwQAY

Hi. What if I told you that people actually pay thousands of dollars to have a part of their body intentionally modified-- and it's one that we can see every day? In other words, people modify their teeth to be straight. This is called orthodontic braces.

I'm sure many people are already familiar with them from adolescence, but what actually happens in your mouth while your teeth are being moved-- there's a process called bony remodeling that's happening, and it's really pretty fascinating.

As your teeth are moved, your jaw actually partially dissolves around the tooth to accommodate its new position. But then instead of floating away, there's another process in your body mediated by cells called osteoblasts that actually build up your bone around the new tooth's position.

This process happens throughout our entire bodies, and scientists and engineers are exploiting these really fascinating properties of our bodies to build better implants for when, for example, parts of our body or parts of our skeleton are wearing out as we age.