



QUICK READ

CHEWING GUM

SHUTTERSTOCK

When you put a piece of gum in your mouth and start to chew, you probably don't think much about the stuff you are chewing. But what is gum anyway?

GUM INGREDIENTS: GUM BASE

Modern gum is made from six basic ingredients: the gum base, sweetener (sugar, corn syrup, or a sugar substitute), softeners, coloring, flavorings, and a substance to make the gum stretch.

The gum base gives the gum its structure. The base is the material that makes chewing gum "chewy" while holding all the other ingredients together. A gum base recipe is the secret formula that really makes one gum different than another.

Originally, chewing gum bases were made from natural substances, like bee's wax or the sap or resins from trees. A popular early gum base was called "chicle." This base was made from the milky liquid in the bark of the sapodilla tree grown in Mexico, Central America and South America. Chicle was used for a long time and was the original base for brands of gum like Wrigley's that still exist today.

Eventually, gum companies began to switch from natural gum bases to human-made ones. Modern gum bases are now made from substances like the ones used in synthetic rubber, which come from petroleum!

But don't worry, the petroleum molecules are processed, changed, and purified to make the resulting gum base molecules safe, chewy, and able to mix well with the other gum ingredients.

These new gum bases have improved texture, keep their flavor longer, and have reduced stickiness, so they don't stick to your teeth more than necessary.

SWEETENERS, FLAVORINGS, AND OTHER INGREDIENTS

The base is just the beginning. Natural sugars or artificial sweeteners are added. Natural sweeteners usually contain combinations of cane sugar, beet sugar, and corn syrup. Sugar-free gums get their sweetness from artificial sweeteners such as aspartame.

Different softeners are added to improve the texture of the gum and to help blend ingredients together. These substances help produce a smooth gum mixture that stays soft and flexible during chewing.

Coloring and flavoring are added to make the gum more attractive and tastier to chew. Popular flavors in the United States are spearmint and peppermint from mint oils extracted from plants. Gum chemists use other natural oils from fruits and spices to develop a variety of flavors.

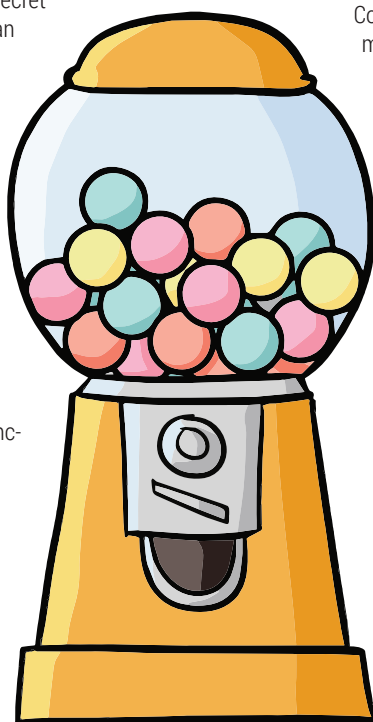
Gum-makers also add an ingredient to make the gum more elastic or stretchier. This is used even more for making bubble gum.

GUMBALLS

To make gumballs, manufacturers form the gum into balls and store them for several hours at 55-60 °F so the gum hardens, but not too much.

Next, the spheres of gum are put into kettles and coated with a flavored and colored sugar solution. The coated spheres are dried and rolled in beeswax (or another wax) to make them shiny and looking good enough to chew!

So, the next time you find yourself unwrapping a piece of gum, you'll know there's a lot of science in that little package.



SHUTTERSTOCK