Tooth Stains

The outermost enamel layer is the hardest substance in the human body. But since teeth are exposed to a variety of elements in day-to-day life, even the hardest protective surface of enamel undergoes different changes as it goes through these exposures through time. These changes may occur in the inner layers or the underlying dentin of the tooth as well. One of these changes is discoloration (changes in the color of the tooth). Tooth discoloration can either be on the tooth surface enamel (extrinsic), or inside its inner layers and underneath it in dentin and pulp areas (intrinsic).

Causes
Extrinsic (External):

Tobacco smoking stains. The effect of long-term use of cigarettes and tobacco can cause tooth surface staining. Tobacco stains are usually dark brown or black. Commonly called as “nicotine stains”, these stains result from combustion of coal tar present in the tobacco and also due to the penetration of tobacco juices and pigments into the substance of the teeth.

Some foods and drinks when consumed over a long period of time can also cause a staining effect on teeth. Such as coffee, tea, cola, and red wine.

Bacteria can produce colored pigments.

Brown stains are caused by a thin translucent, layer of bacteria covering the tooth surface. It is commonly seen in persons with very poor oral hygiene.

Green to greenish yellow stains, sometimes usually seen in upper anterior teeth of children, are caused by thick layers of bacteria and fungi.

Orange stains seen in front teeth are also caused by color producing bacteria.

Tooth decay or a broken down filling can cause external stains on the tooth. Existing dental fillings can also be the cause of some types of tooth surface discoloration. Tooth-colored or white fillings can change in color and become darker as time passes. Metal fillings, like amalgam, even if not directly seen, can show through the translucent tooth enamel or even be the cause the staining.

Intrinsic (internal):

Some medicines can cause tooth discoloration. A common example is the antibiotic tetracycline. It has been proven that this antibiotic can produce blue-gray tooth staining if it is taken during pregnancy or when a child is 8 years old and under.

Too much Fluoride can cause tooth discoloration. If a child takes in large amounts of fluoride during tooth formation, tooth staining can occur. Fluoride stains can range in color from chalky white to brown and sometimes even become “mottled” (surface becomes irregular).
Discoloration due to fluoride is called fluorosis. One common cause of high fluoride intake in children is the high-concentration of fluoride in the supply of drinking water as in some areas in Cavite.

Aging:
A person’s teeth naturally darken as he/she ages. This is due to the continuous deposition of the dentin through time, making the tooth darker inside.

High fever due to childhood infections during teeth development can lead to areas of poor calcification within the teeth resulting in the appearance of prominent white spots (chalky).
Tooth decay or dental caries changes the color of teeth.
Teeth that have experienced trauma (like being accidentally hit) can change in color. Usually the discoloration is a sign that the nerve/pulp inside the tooth has died and has started to rot.

Fillings can also cause internal stains especially if they have “leaks”. Amalgam fillings can stain the insides of the tooth and this can show through the external surface.

What can you do?

- Good oral hygiene: proper tooth brushing techniques, flossing
- Whitening toothpastes
- Whitening strips
- Paint-on whitening solutions

What can your dentist do?

Extrinsic stains from tobacco, tea and bacterial pigments can be removed by having your teeth professionally cleaned.
Dental Caries should be treated with dental fillings, while old and broken down fillings, crowns and bridges must be replaced by new ones in order to remove the stain and discoloration.
Teeth whitening or bleaching
Micro-abrasion combined with tooth-mousse treatment
Veneers