How do dentists whiten teeth?

Teeth get discoloured by food (eg, berries), drink (eg, tea, coffee) and smoking, as well as by tooth trauma, some drugs, and excessive fluoride exposure during tooth development. If you think you need whitening treatment, visit your dentist to receive a full-mouth check-up, discuss your medical history, find out if the tooth discoloration is deep (intrinsic) or on the surface (extrinsic), and discuss treatment options:

- **Chairside bleaching**: while the gums are protected with gel or a rubber shield, the dentist will apply a strong bleaching agent to the teeth, sometimes shining a light or laser during the procedure. Each session typically lasts half an hour to 1 hour and more than one appointment may be needed.
- **Prescription bleaching**: the dentist will take impressions of the teeth to make customised mouth trays for the home use of a prescription bleaching kit; the trays are filled with a mild bleaching agent and worn as advised (eg, overnight or twice a day). The dentist will show you how to use the product safely and will recommend the treatment period and follow-up arrangements. This method is sometimes used after or between chairside bleaching visits.
- **Bleaching after root canal (endodontic) therapy**: after performing root canal therapy, the dentist may insert a slow-release bleaching agent into the tooth to bleach it from the inside.
- **“Dental bonding”**: for cases in which bleaching will not work, the dentist may recommend covering a tooth surface with a ceramic (porcelain) veneer or a thin layer of filling material (composite resin) that is shaped and hardened.

How do store-bought whiteners work?

Non-prescription (over-the-counter) whitening products that are available in shops vary in their mechanism and effectiveness of whitening (see Box):

- **Bleaching agents**, applied with a special brush or pen, as a strip, or in a mouth tray, are designed to bleach away deep stains; some whitening toothpastes contain a low concentration of bleaching agent. **Always talk to your dentist first about bleaching.**
- **Abrasive toothpastes and toothpastes containing destainers** do not bleach teeth but remove stains present on the surface (enamel) only.

Tips on keeping teeth white

It must be remembered that the bulk of each tooth (dentine) is naturally slightly yellow and yellows with age. In addition, deep stains are generally more difficult to treat than surface stains, and not all stains can be whitened. Most importantly, white teeth do not necessarily indicate healthy teeth, so visit your dentist regularly and keep your teeth clean by:

- **Brushing teeth** with a fluoride toothpaste twice a day, making sure to reach all teeth; and using floss or an interdental cleaner once a day to clean between teeth [note: over-aggressive brushing damages your teeth and gums]
- **Avoiding food and drink that stain teeth**, or rinsing with water after eating/drinking these
- **Arranging professional teeth cleaning** with your dentist, who may refer you to a dental hygienist
- **Giving up smoking**: Hong Kong Department of Health Smoking Cessation Hotline: 1833 183; HKU Smoking Reduction Hotline: 2819 2697; HKU Female Smoking Cessation Hotline: 2819 2692; Hong Kong Council on Smoking and Health website: <http://smokefree.hk> (Chinese) or <http://smokefree.hk/en/home> (English)


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