Fluorides

- International consensus that the widespread use of fluoride has been a major factor in the overall decline in the prevalence and severity of dental caries in developed countries.¹
- Most recent expert consensus in Australia – ARCPOH Guidelines published in ADJ 2006.²
  - Substantial and continuing evidence of the efficacy of fluoride in caries prevention
  - Water fluoridation and daily use of fluoride toothpaste – baseline recommendations
  - Other fluorides recommended on individual needs basis
- Despite significant reduction in caries in children – only some improvement has carried through to adulthood – high levels of caries exist among some groups. eg. low socio-economic groups, indigenous, rural and remote.
- Fluoride inhibits demineralisation by lowering the critical pH for enamel dissolution. Fluoride enhances remineralisation by lowering energy needed to reform apatite.
- Calcium Fluoride globules form on tooth surface and in plaque – acts as a fluoride reservoir. Remineralised areas are more resistant to demineralisation.
- Product recommendations should be based on individual needs:
  - Age
  - Fluoride exposure (water fluoridation, water filters, toothpaste, fluoride products)
  - Caries risk (Diet, OH, medical history, medications, orthodontic tx)
  - Behaviour (Lifestyle, patient/parent preference)
  - Product availability (Form, Fluoride type, Concentration)
- Fluoride efficacy directly related to frequency and concentration.

Toothpastes:
- Sodium fluoride and MFP comparable efficacy.
- 400-500ppm – Children under 6 years (eg. My First Colgate, Sparkling Mint Gel; 2-6 years)
- 1000-1450ppm Standard concentration in supermarkets (eg. Colgate Total; Colgate Sparkling Mint Gel 6+ years)
- 5000ppm – High risk – pharmacy and dental practices only (NeutraFluor 5000 Plus, NeutraFluor 5000 Sensitive)

Rinses:
- Neutral and APF comparable clinical efficacy
  - Daily: NeutraFluor 220 Alcohol-free
  - Weekly: NeutraFluor 900
- Indications – moderate to high caries risk, increased caries susceptibility (ie. Ortho tx)

Caution – Not for children under 7 years. Avoid APF in patients with porcelain, composite and GIC restorations and patients with xerostomia or erosion.

Gels:
- Neutral and APF comparable clinical efficacy
- In-surgery: Tray application or Paint on

Varnish: Duraphat
- In-surgery treatment only: Spot application for high risk caries or dentine hypersensitivity
- 22,600 ppm sodium fluoride. Should be used for people who have elevated risk of developing caries, including children under the age of 10. Dosage instructions should be followed.

References

Head to www.colgateprofessional.com.au/students for more information on products, references, resources, competitions and prizes