

## NICOTINE REPLACEMENT THERAPIES (NRT'S)



### WHAT IS IT?

- Developed in Sweden during the 1970s as a means to assist submariners
- Cornerstone of tobacco dependence treatment; safe and effective
- Nicotine gum (nicotine polacrilex, Nicorette®)
- Nicotine transdermal patches (Habitrol®, Nicoderm CQ®, Nicotrol®)
- Nicotine inhaler (Nicotrol Inh.®)
- Nicotine spray (Nicotrol NS®)
- Nicotine lozenge (Commit®)

**Nicotine Gum** was approved by the FDA in 1984 and is available in 2mg and 4mg pieces (.86mg absorbed from the 2mg piece and 1.2mg absorbed from the 4mg piece). The "Park and Chew" technique is used and is affected by chewing rate and pH of the saliva. Adverse effects include jaw pain, mouth soreness, dyspepsia and hiccups

**Nicotine transdermal patches** were approved by the FDA in 1991 and OTC approval was in 1996. All 21 mg patches deliver .9mg of nicotine per hour and temperature and circulation affect delivery

- Adverse effects: sleep disturbance, skin reactions
- Many studies of efficacy: 20- 30% over 6 months

**Nicotine inhaler** was FDA approved in 1998. Cigarette holder shape with replaceable cartridges each containing 10mg nicotine and 1mg menthol (400 puffs per cartridge and 80 puffs equal one cigarette). One can use 4 to 6 inhalers per day and the delivery is affected by puff rate, temperature and saliva pH. 25% taper every month in number of puffs with efficacy of 15% quit in first year

**Nicotine spray** was approved in 1996. One inhalation in each nostril equals a total dose of 1 mg nicotine. The average use is 13 to 20 doses per day. Adverse effects include: runny nose, nasal irritation, throat irritation, watery eyes and sneezing. All but throat irritation decreases in one to seven days. There has been 26% abstinence success rate in the first year

**Nicotine lozenge** was approved in 2002 and comes in 2mg and 4mg doses with the recommended number being about nine per day, in the first six weeks, with tapering thereafter



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