Apical Periodontitis is a biofilm related chronic infectious disease that occurs very frequently (high prevalence).
Anatomy is destiny for the endodontic bacterial biofilm ecology, it’s content provides “bed and board” to the microorganisms.
The endodontic biofilms grow slowly and may at the beginning be essentially non-pathogenic but still capable of causing inflammation and destruction of the peri-radicular tissues.
Buildup of bacterial biofilm in the lumen and walls of the root canal systems are the endodontists biggest problems.
Undeniable direct observations with TEM and SEM have established that the bacteria causing AP grow in matrix enclosed biofilms.

Insert CARR’s TEM’S and SEM’S
Epidemiological studies disclose that overall endodontic treatment quality is low with a high failure rate when done by the general dental practitioner.

(Eriksen 1991)
(Dugas et al, 2003)
(Kirkevang et al., 2001)
The requirements for retreatment of the general population with endodontic therapy are high.