

#### REMOVES:

- DENTINAL DEBRIS
- DETACHES SMEAR LAYER
- DEVITALIZES PATHOGENIC DEBRIS

#### KEY BENEFITS:

- EASY TO DELIVER
- SUPERIOR CLEANING ACTION
- ACTS IN SECONDS
- SELECTIVE
- SELF-LIMITING
- BIOCOMPATIBLE
- SAFE ON DENTIN/ENAMEL
- DEVICE

#### HYBENX – AN INNOVATIVE APPROACH TO ENHANCED REMOVAL OF DENTINAL DEBRIS AND SMEAR LAYER

EPIEN Medical has introduced a new type of root canal cleanser named HYBENX®. It has a mode of action never before used in root canal procedures. Among the features of HYBENX that make it unique is that it is first and foremost an exceptional mechanical rinsing agent due to its elevated density and high viscosity. The sheer forces generated by HYBENX as it flows through the root canal readily dislodge and then trap post-instrumentation debris. But HYBENX also has a secondary action as a potent contact desiccant. Brief contact of HYBENX with the smear layer and other necrotized debris in the root canal will cause them to shrink and detach from the canal wall because all water has been absorbed from them. They are then easily trapped in the flow of the viscous product and readily rinsed away.

#### HYBENX – MAXIMIZE CLEANING BY COMBINING AGENTS

Preparation of root canals includes rinsing the canal space post-instrumentation with a variety of chemical solutions with complementary modes of action to effect cleaning. HYBENX was engineered to be a biocompatible product with a unique mode of action relative to the standard canal cleansers used today. It is expected that HYBENX will be useful as an adjunctive agent and used in combination with those cleansers already in established protocols because it has a different mode of action that should only enhance their root canal cleansing activities.

#### THE PHOTOMICROGRAPHS ON THE RIGHT ARE FROM EX-VIVO ROOT CANAL CLEANSING STUDIES DEMONSTRATING HYBENX EFFICACY

Figure 1: The left SEM shows an instrumented root canal with residual debris and biofilm present. The right SEM shows how HYBENX quickly removes this problem smear layer completely.

Figure 2: This high powered SEM shows how a bacterial rod can reside within a dentinal tubule and resist the cleaning process.

Figure 3: This is a cross section of dentinal tubules under a fluorescent light that demonstrates how HYBENX (red areas) migrates quickly into the dentinal tubules (where bacteria can hide) to enhance the cleaning process.

Fig. 1

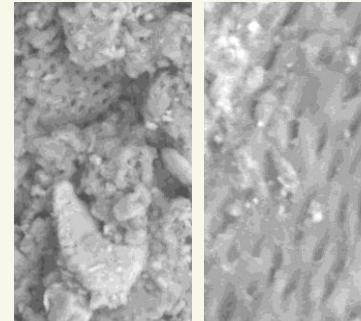


Fig. 2

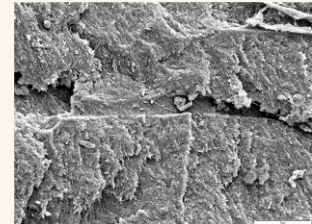
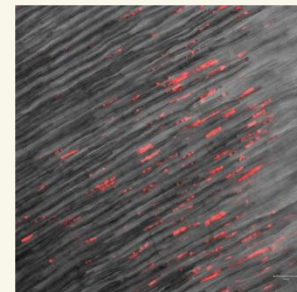


Fig. 3



FOR MORE INFORMATION  
CONTACT

CUSTOMERSERVICE@EPIEN.COM  
OR  
CALL 651-653-3380