3D PRINTING FOR DENTISTRY

Providing the very best quality 3D printed teeth to aid dentists in endodontic training and research

MADE IN THE UK
For a more realistic endodontic experience
Current training "blocks" or replica teeth are not "realistic" in their anatomy. Extracted teeth are not uniform for training purposes and present with consent issues and cross infection problems. During my masters degree in Endodontics, I realised the need for a more realistic training tooth and started investigating how this could be achieved. I quickly realised that through accurate dental imaging and 3D printing we could achieve this goal.

For my dissertation I produced a basic replica tooth from an upper molar using a micro-CT scan and 3D printing. Since then I have never looked back. I hope you enjoy preparing the Endo Reality teeth as much as I have enjoyed producing them!

Sophie Parker BDS MSc
Founder and Director
MICRO-CT IMAGING

The most accurate type of 3D imaging technique used for research in dentistry is micro-CT. Micro-CT is a high resolution 3D technology with scanning capabilities less then 10 microns. Micro-CT has allowed increased visualisation and more accurate reproduction of 3D data. For example, the visualisation and evaluation of periapical bone destruction and healing patterns of bone have been studied using micro-CT. Through conversion of micro-CT data to STL printing format, very accurate 3D digital models can be produced from micro-CT radiography.

At Endo Reality we have used micro CT imaging data to produce 3D Printed teeth for a breakthrough in realistic endodontic training.

Endo Reality Training Teeth are anatomically correct and offer the ideal endodontic training tool.

WHAT TO EXPECT AT ENDO REALITY

3D Printing
At Endo Reality we use the very best 3D printing team headed by innovator Troy Baker at Design Reality North Wales. Design Reality is a leading industrial design consultancy that has built its reputation by developing high performance products that delight users and build brands. Operating globally across a range of different sectors they have worked with some of the world's largest companies as well as helping start-up businesses realise their full potential.

Service
We offer an efficient printing service to be able to deliver your training teeth as quickly as possible. Your teeth are shipped within a week of order by a courier to ensure safe delivery.

Bespoke
At Endo Reality we do offer a bespoke service for design and printing. If you wish for a variation in anatomy or tooth structure we can design this for you and print your requirements. Price on application.
Endo Reality offer 3 levels of difficulty of upper first molars.

**LEVEL 1**
Level 1 teeth with open wide canals are easy to navigate and provide the ideal starter tooth.

**LEVEL 2**
Level 2 teeth have a more complicated internal structure with a mildly sclerosed canal system with lateral canals.

**LEVEL 3**
Level 3 teeth are our most complicated teeth with an extremely sclerosed canal system, multiple lateral canals and testing isthmus.

Upper central incisors can also be printed with an open apex for teaching of MTA, or equivalent material placement.
Anatomy of Endo Reality Teeth
The Endo Reality Jaw can be fitted to a Phantom Head for a more realistic endodontic experience.

The Jaw has a removable attachment to allow removal of the teeth during and after endodontic practice.

The retainer has allowed the teeth to retain their original anatomy without having to modify and potentially compromise their shape for retention purposes.
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