



# PRODUCT PORTFOLIO

[WWW.BIOVOXEL.TECH](http://WWW.BIOVOXEL.TECH)

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BIOVOXEL  
TECHNOLOGIES

# BRINGING INNOVATION TO MEDICAL EDUCATION VIA 3D PRINTING

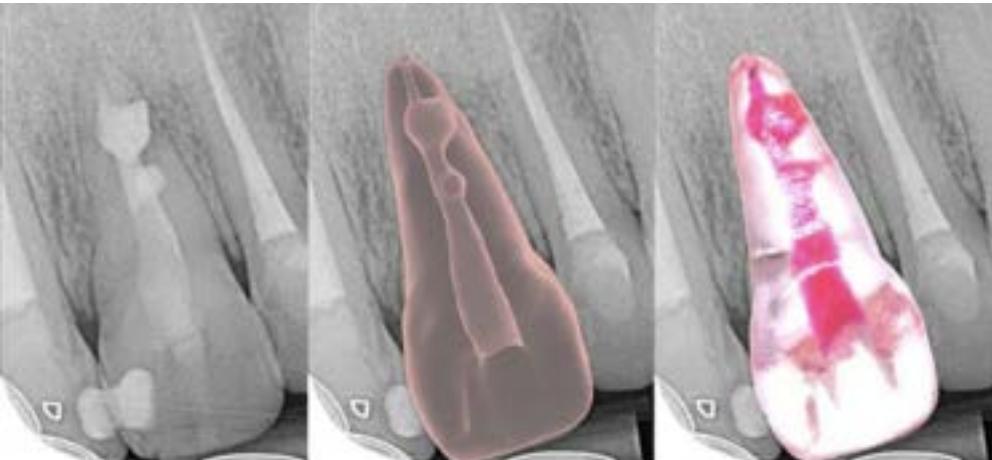


## About Us

Bio voxel Technologies s.r.o. specializes in producing **highly realistic, top-quality training models** using advanced 3D printing technology.

Founded with a passion for innovation and education, our team consists of experts in dental science, engineering, and technology.

By integrating innovation with education, we strive **to bridge the gap between theoretical knowledge and hands-on practice** for dental professionals worldwide, ultimately contributing to **improved patient care**.



We also provide custom-made models tailored to meet our customers' needs.

# WHY CHOOSE US

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## REALISTIC DESIGN

Our models are designed with precise anatomical details to replicate real-life scenarios, helping you build confidence and refine your skills.



## INNOVATION AT THE CORE

We are constantly exploring new ways to enhance dental education through technological innovation. With cutting-edge 3D printing technology, we deliver consistent quality, accuracy, and versatility in all our products.



## EXPERTISE AND EXPERIENCE

Our team consists of experienced professionals from dentistry and technology, ensuring a comprehensive approach to our solutions.



## CUSTOMER-CENTRED APPROACH

Your success is our priority, and we offer ongoing support to help you maximize the benefits of our training models.



## COMMITMENT TO EDUCATION

We're passionate about bridging the gap between theoretical knowledge and hands-on practice, empowering the next generation of dental experts.

# TRAINING MODELS AND TOOLS



## ENDOTOOTH

### REPLICAS OF REAL TEETH FOR TRAINING IN ENDODONTICS

Utilization of high-end 3D printing technologies and microCT imaging

Transparent material with dentin hardness

Great variety available

Custom-made replicas on demand

### Practical Training

EndoTooth replicas are a practical component of professional hands-on workshops, courses, congresses, and university curricula.

#### Transparency



Transparent

#### Integrity



Intact

#### Vitality



Accessed



Pulp



No Pulp

# ANATOMICAL MODELS

## ENDOTOOTH 11 UPPER INCISOR



- Standard first upper incisor (11 ISO notation)
- Intact / Accessed
- With pulp / Without pulpal tissue
- Difficulty 2/5

First upper incisor – standard, uncomplicated model. Pulp chamber is of regular size, root canal is quite wide, unobligated and straight. Canal continually narrows until its 0.13mm apical diameter.

Two lateral canals in the apical third are of interest.



Product #	Description
ET11UI - IP	Transparent Intact
ET11UI - A	Transparent Accessed
ET11UI - AP	Transparent Accessed with Pulp
ET11UI - IPO	Opaque Intact
ET11UI - AO	Opaque Accessed
ET11UI - APO	Opaque Accessed with Pulp



## ENDOTOOTH 11 INCOMPLETE ROOT FORMATION

- Upper incisor (11 ISO notation) with incomplete root formation
- Accessed
- With pulp / Without pulpal tissue
- Difficulty: 2/5

Upper incisor with extra wide apical opening due to incomplete root formation with its diameter of 1,3 mm. It makes the model perfect for practice of a bioceramic apical plug placement.



Product #	Description
ET11IR-A	Transparent Accessed
ET11IR-AP	Transparent Accessed with Pulp
ET11IR-AO	Opaque Accessed
ET11IR-APO	Opaque Accessed with Pulp

## ENDOTOOTH 14 UPPER PREMOLAR



- Challenging upper premolar (14 ISO notation) with 3 root canals
- Intact / Accessed
- With pulp / Without pulpal tissue
- Difficulty level: 4,5/5

Pulp chamber is slightly contracted with 2 canal entrances on the floor. Buccal canal bifurcates after 5mm into two canals, each with their own portal of exit. This bifurcation copies the outer buccal root configuration. Because of the bifurcation and significant curvature at the apical third, shaping of the buccal root canals presents a challenge. Buccal root canals have apical diameters 0,13 mm and 0,12 mm. Palatal root canal has a slight curve buccally and is 0,11 mm wide at the apex. The apical thirds of the canals are very narrow and their negotiation is difficult.

Product #	Description
ET14UP - IP	Transparent Intact
ET14UP - A	Transparent Accessed
ET14UP - AP	Transparent Accessed with Pulp
ET14UP - IPO	Opaque Intact
ET14UP - AO	Opaque Accessed



## ENDOTOOTH 14 UPPER PREMOLAR - MESIO-OCCLUSAL ACCESS



- Upper premolar (14 ISO notation) with 2 root canals
- Accessed
- With pulp / Without pulpal tissue
- Difficulty level: 4/5

Tooth is accessed, with wide mesio-occlusal access cavity. This situation represents ideal conditions not only for endodontic training but also for approximal composite build-up. Pulp chamber is slightly contracted with 2 canal entrances on the floor. Each canal entrance proceeds into its respective canal - buccal and palatal. The canals are very narrow in the middle and apical 1/3 and are very challenging to negotiate and gain patency.



Product #	Description
ET14UP - DA	Transparent Accessed
ET14UP - DAP	Transparent Accessed with Pulp
ET14UP - DAO	Opaque Accessed
ET14UP - DAPO	Opaque Accessed with Pulp

## ENDOTOOTH 16 UPPER MOLAR (Less Complex)

- **Upper Molar (16 ISO notation) with 4 root canals (less complex variant)**
- **Intact / Accessed**
- **With pulp / Without pulpal tissue**
- **Difficulty: 3/5**



Pulp chamber and root canal system are without significant calcifications and obliterations. Root canals of the replica are quite narrow and need to be negotiated patiently.

All canals have relatively straight, only very slightly bend course.

MB1 and MB2 are quite thin at their apical diameters – both diameters are 0.10mm. Distal canal has 0.11mm apical diameter. Palatal canal is relatively wider in its course and narrows down to 0.15mm apical diameter.



Product #	Description
ET16UM - IP	Transparent Intact
ET16UM - A	Transparent Accessed
ET16UM - AP	Transparent Accessed with Pulp
ET16UM - IPO	Opaque Intact
ET16UM - AO	Opaque Accessed

## ENDOTOOTH 16 UPPER MOLAR (More Complex)



- More challenging upper molar (16 ISO notation)
- 4 Root canals
- Intact / Accessed
- With pulp / Without pulpal tissue
- Difficulty: 3,5/5



Pulp chamber and root canal system are without significant calcifications and obliterations, except the MB2 and narrow canal entrances to mesiobuccal canals. MB2 root canal presents a challenge – after 4 mm long common course with MB1 it separates and continues as a narrow, slightly S curved canal. 2 mm prior to terminus there is a communication through isthmus between the two mesiobuccal canals.

Apical diameter of MB1 and MB2 is 0,10 mm. Distal root canal forms a bifurcation in apical third and reaches apical diameter of 0,18 mm. Palatal canal curves slightly buccally in its course, is quite wide and narrows to 0,10 mm at the apical diameter.

Product #	Description
ET16UMC - IP	Transparent Intact
ET16UMC - A	Transparent Accessed
ET16UMC - AP	Transparent Accessed with Pulp
ET16UMC - IPO	Opaque Intact
ET16UMC - AO	Opaque Accessed



## ENDOTOOTH 21 INTERNAL RESORPTION



- **Upper incisor (21 ISO notation) with internal resorption**
- **Intact / Accessed**
- **With pulp / Without pulpal tissue**
- **Difficulty: 4/5**

Upper incisor with one root canal and specific pathology – excessive internal resorption. In the middle third of the canal there is a middle-sized resorption cavity that does not perforate the outer surface of the tooth. In the apical third there is a more extensive resorption cavity that perforates the root and communicates with periodontium. The root canal itself is relatively wide and oval on the cross-section. The apical diameter is 0,4 mm.

Product #	Description
ET21IR - IP	Transparent Intact
ET21IR - A	Transparent Accessed
ET21IR - AP	Transparent Accessed with Pulp
ET21IR - IPO	Opaque Intact
ET21IR - AO	Opaque Accessed
ET21IR - APO	Opaque Accessed with Pulp



## ENDOTOOTH 24 UPPER PREMOLAR



- **Upper premolar (24 iso notation) with two root canals**
- **Intact (non-accessed)**
- **Difficulty: 2,5/5**

Pulp chamber is standard sized, with two canal entrances into palatal and buccal root canal on the floor. Both canals have relatively uncomplicated, straight course.

Palatal canal divides into two equal ramifications 1,5mm in apical delta before its end. Buccal canal has apical diameter of 0,13 mm. Palatal canal ramifications have diameters of 0,13 and 0,14mm.



Product #	Description
ET24UP - IP	Transparent Intact
ET24UP - IPO	Opaque Intact

## ENDOTOOTH 36 LOWER MOLAR (Less Complex)



- Lower molar (36 ISO notation) with 4 root canals
- Intact / Accessed
- Less complex anatomy
- Difficulty: 2,5/5

Pulp chamber is standard sized, the endodontic system continues into 3 canal entrances (2 mesial-buccal and oral and 1 distal) which lead to relatively straightforward and uncomplicated course of respective canals. Distal canal is ribbon shaped. Apical diameters of canals vary from 0,1 to 0,18 mm.



Product #	Description
ET36LM - IP	Transparent Intact
ET36LM - A	Transparent Accessed
ET36LM - AP	Transparent Accessed with Pulp
ET36LM - IPO	Opaque Intact
ET36LM - AO	Opaque Accessed

## ENDOTOOTH 37 LOWER MOLAR (More Complex)



- Lower molar (37 ISO notation) with 3 root canals
- Intact / Accessed
- With pulp / Without pulpal tissue
- Difficulty: 3/5

Pulp chamber is slightly contracted. Mesial canals have one common canal entrance. In the first third of mesial root they form one ribbon shaped canal before it divides into typical mesiobuccal and mesiolingual canal. Both of them are curved in the apical third. MB canal curvature is severe. Apical diameter of MB canal is 0,16 and 0,12 mm of ML canal.

Distal canal is wide and ribbon shaped. It is formed by distobuccal and distolingual canal connected with isthmus what can be seen on the cross-section. Between the middle and the apical third the isthmus narrows down until it disappears for 3 mm distance. The only portal of exit is placed slightly laterally and the apical diameter of the distal canal is 0,15mm.



Product #	Description
ET37LM - IP	Transparent Intact
ET37LM - A	Transparent Accessed
ET37LM - AP	Transparent Accessed with Pulp
ET37LM - IPO	Opaque Intact
ET37LM - AO	Opaque Accessed

## ENDOTOOTH 43 LOWER CANINE



- Lower canine (43 ISO notation) with one root canal
- Intact / Accessed
- With pulp / Without pulpal tissue
- Difficulty: 2,5/5

Lower canine with typical pulp chamber and one mesiodistally flattened root canal. The course of the canal is relatively uncomplicated until its apical delta, where it divides into two equivalent ramifications placed in vestibular and lingual direction. Both of them have apical diameter 0,13 mm.

Product #	Description
ET43LC - IP	Transparent Intact
ET43LC - A	Transparent Accessed
ET43LC - AP	Transparent Accessed with Pulp
ET43LC - IPO	Opaque Intact
ET43LC - AO	Opaque Accessed
ET43LC - APO	Opaque Accessed with Pulp



## DECIDUOUS TEETH



## ENDOTOOTH 84 DECIDUOUS MOLAR

- Lower deciduous molar (84 ISO notation)
- 2 mesial and 3 distal root canals
- Intact / Accessed
- With pulp / Without pulpal tissue
- Difficulty: 3,5/5

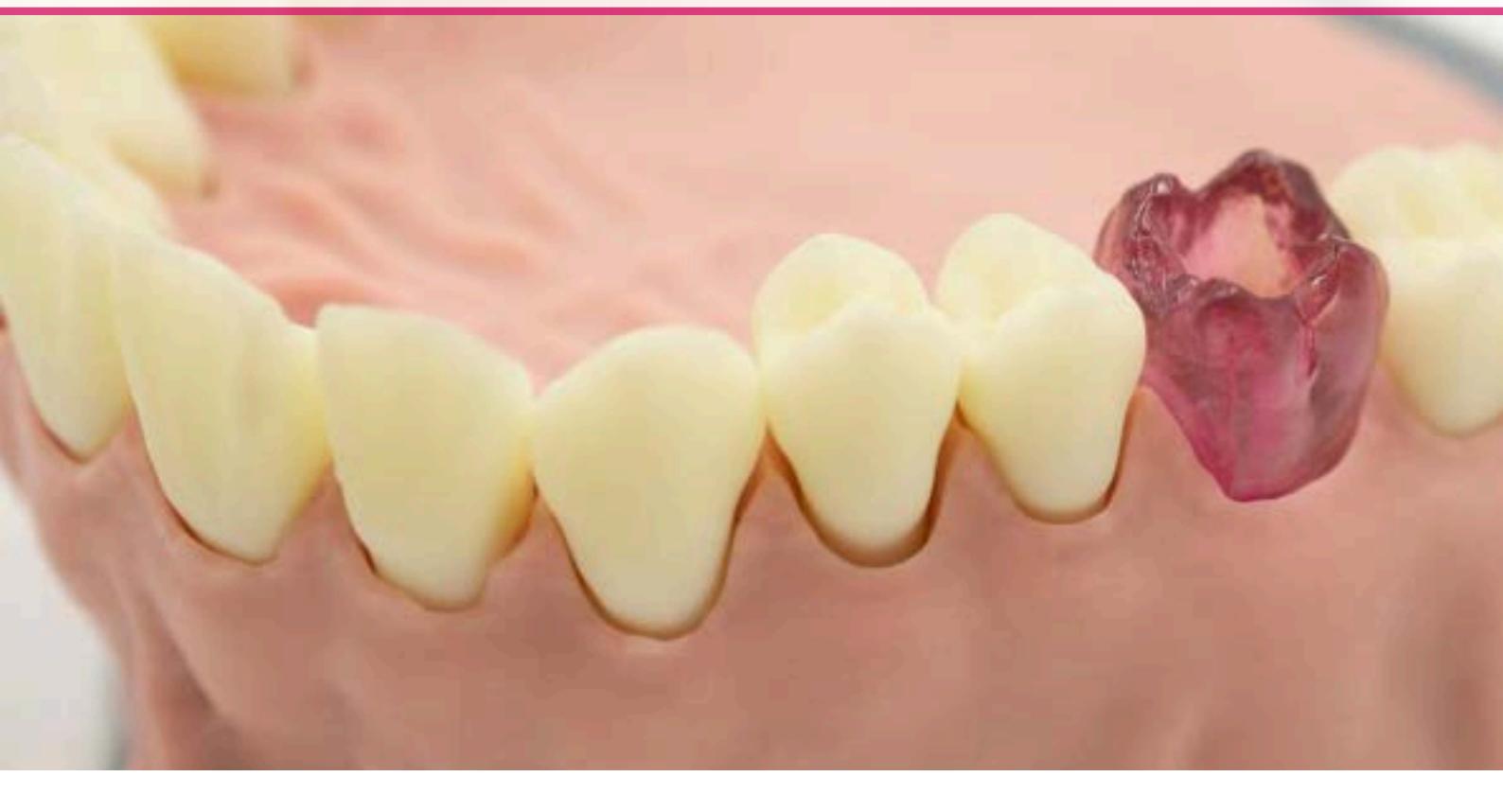
Apical diameters are 3x 0,11 mm, 0,19 mm and 0,14 mm. Model is designed to practice pulpotomy, pulpectomy and endodontic treatment on deciduous teeth.

Product #	Description
ET84DM - IP	Transparent Intact
ET84DM - A	Transparent Accessed
ET84DM - AP	Transparent Accessed with Pulp
ET84DM - IPO	Opaque Intact
ET84DM - AO	Opaque Accessed
ET84DM - APO	Opaque Accessed with Pulp



# BIOVOXEL TYPODONT

EndoTooth replicas compatible with Biovoxel Typodont and Phantom Head



## ENDOTOOTH 11 UPPER INCISOR FOR INTERNAL BLEACH TRAINING (Biovoxel Typodont)

- First upper incisor (11 ISO notation)
- Accessed with prepared cavity, canal size ISO 50/04
- Transparent / Opaque
- Compatible with Biovoxel Typodont Jaws



Product #	Description
ET11IB - A - BVX	Transparent Accessed

## EndoTooth 11 Upper Incisor (Biovoxel Typodont)



- Standard first upper incisor (11 ISO notation)
- Intact / Accessed
- With pulp / Without pulpal tissue
- Difficulty 2/5

The first upper incisor – standard, uncomplicated model. The pulp chamber is of regular size, and the root canal is quite wide, unobiterated, and straight. The canal continuously narrows until it reaches a 0.16mm apical diameter.

In the apical portion, there is one lateral canal present. The replica is available in three variants (accessed with or without pulpal tissue and intact with pulpal tissue). The working length from the palatal access to the tooth apex is 22-23mm.

Product #	Description
ET11UI - IP - BVX	Transparent Intact
ET11UI - A - BVX	Transparent Accessed
ET11UI - AP - BVX	Transparent Accessed with Pulp
ET11UI - IPO - BVX	Opaque Intact
ET11UI - AO - BVX	Opaque Accessed
ET11UI - APO - BVX	Opaque Accessed with Pulp



## EndoTooth 16 Upper Molar (Biovoxel Typodont)



- First Molar (16 ISO notation)
- Intact / Accessed
- With pulp / Without pulpal tissue
- Difficulty: 3,5/5

Pulp chamber and root canal system of this first molar are without significant calcifications and obliterations. Canals are quite long - ranging approx 23-25mm measured from respective cusps.

MB2 root canal presents a challenge – after 4 mm long common course with MB1 it separates in the deeper portion of the canal's first third and continues as a narrow, slightly S curved canal.

2 mm prior to terminus there is a communication through isthmus between the two mesiobuccal canals. Apical diameters of respective canals are in range from 0.15 to 0.3mm. Fits the Biovoxel typodont.

Product #	Description
ET16UM - IP - BVX	Transparent Intact
ET16UM - A - BVX	Transparent Accessed
ET16UM - AP - BVX	Transparent Accessed with Pulp
ET16UM - IPO - BVX	Opaque Intact
ET16UM - AO - BVX	Opaque Accessed



## SPECIAL MODELS

### EndoTooth 16 Upper First Molar for pulpotomy (Biovoxel Typodont)



- First Molar (16 ISO notation) with simulated deep occlusal caries at the D4 stage
- Realistic endodontic system
- Intact with pulp

This first molar model with simulated deep occlusal caries at the D4 stage, complete with a realistic endodontic system, including pulp and four canals. Ideal for training in pulp capping, pulpotomy, pulpectomy, or other endodontic procedures. Designed to fit the Biovoxel typodont jaw.



Product #	Description
ET16UMP-BVX	Opaque Intact

### Re-EndoTooth 26 (Biovoxel Typodont)



- First Molar (26 ISO notation)
- An advanced molar model for re-endo training.

The Biovoxel Re-EndoTooth is an advanced molar model for re-endo training. The tooth **features a separated instrument** in the MB1 canal, **an untreated MB2** which can be found 3mm deeper from the common canal course with MB1, an **FRC post** in the palatal canal, and **gutta-percha filling** in the D and partially MB canals.

The tooth has a composite-filled access cavity. It can be held in hand, in one of the Biovoxel holders, or inserted into a Biovoxel Typodont.



Product #	Description
ET26RE - BVX	Transparent Intact
ET26RE - O - BVX	Opaque Intact



## KaVo ANALOG

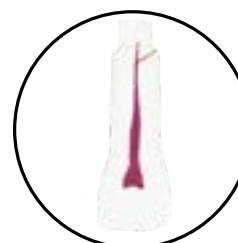
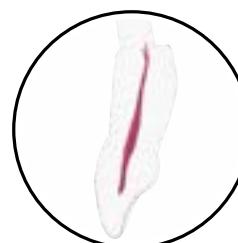
EndoTooth replicas compatible with KaVo jaws and phantom heads

### ENDOTOOTH 11 CENTRAL INCISOR (KaVo Analog)



- Upper central incisor (11 ISO notation)
- Standard, uncomplicated model
- Difficulty 1,5/5

Pulp chamber is standard sized, root canal is quite wide, unobiterated and straight. Canal continually narrows until 0,1 mm and is ended blindly inside the model (model has no apical foramen).



Product #	Description
ET11UI - K	Transparent Intact
ET11UI - KO	Opaque Intact

## ENDOTOOTH 14 UPPER MOLAR (KaVo Analog)



- Challenging upper premolar (14 ISO notation) with 3 root canals
- Intact / Accessed
- Difficulty: 4/5

Pulp chamber is slightly contracted with 2 canal entrances on the floor. Buccal canal bifurcates after 5mms into two canals, each with their own portal of exit. This bifurcation copies the outer buccal root configuration. Because of the bifurcation and significant curvature at the apical third, shaping of the buccal root canals presents a challenge.

Buccal root canals have apical diameters 0,13 mm and 0,12 mm. Palatal root canal has a slight curve buccally and is ended blindly inside the model (model has no apical foramen.).



## ENDOTOOTH 16 UPPER MOLAR (KaVo Analog)



- Upper Molar (16 ISO notation) with 4 root canals (less complex variant)
- Intact / Accessed
- Difficulty: 3/5

Pulp chamber and root canal system are without significant calcifications and obliterations. Root canals of the replica are quite narrow and need to be negotiated patiently. All canal have relatively straight, only very slightly bend course. MB1 and MB2 are quite thin at the apical diameters – they are ended blindly inside the model (model has no apical foramen).



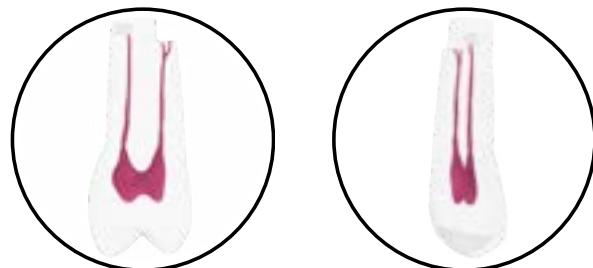
Product #	Description
ET16UM - K	Transparent Intact
ET16UM - KO	Opaque Intact

## ENDOTOOTH 24 UPPER PREMOLAR (KaVo Analog)



- **Upper premolar (24 ISO notation) with two root canals**
- **Intact (non-accessed)**
- **Difficulty: 2,5/5**

Pulp chamber is standard sized, with two canal entrances into palatal and buccal root canal on the floor. Both canals have relatively uncomplicated, straight course. Palatal canal divides into two equal ramifications 1,5mm in apical delta before its end. Buccal canal has apical diameter of 0,13 mm. Palatal canal ramifications have diameters of 0,13 and 0,14mm.



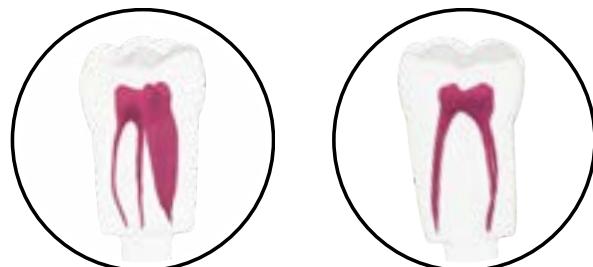
Product #	Description
ET24UP - K	Transparent Intact
ET24UP - KO	Opaque Intact

## ENDOTOOTH 36 LOWER MOLAR (KaVo Analog)



- **Lower molar (36 ISO notation) with four root canals**
- **Intact (non-accessed)**
- **Difficulty: 2,5/5**

Endotooth is designed to fit KaVo Typodonts. Pulp chamber is standard sized, the endodontic system continues into 3 canal entrances (2 mesial-buccal and oral and 1 distal) which lead to relatively straightforward and uncomplicated course of respective canals. Distal canal is ribbon shaped. Canals are ended blindly.



Product #	Description
ET36LM - K	Transparent Intact
ET36 LM - KO	Opaque Intact

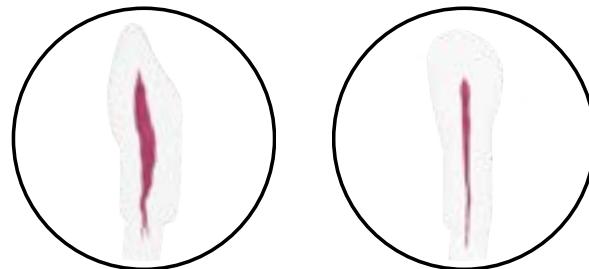
## ENDOTOOTH 43 LOWER CANINE (KaVo Analog)



- Lower canine (43 ISO notation) with one root canal
- Intact (non-accessed)
- Difficulty: 2,5/5

Lower canine with typical pulp chamber and one mesiodistally flattened root canal. The course of the canal is relatively uncomplicated until its apical delta, where it divides into two equivalent ramifications placed in vestibular and lingual direction. Both of them are ended blindly inside the model (model has no apical foramen).

Product #	Description
ET43LC - K	Transparent Intact
ET43LC - KO	Opaque Intact



## ENDOTOOTH KaVo ANALOG OVERVIEW

TRANSPARENCY	TRANSPARENT			OPAQUE			
	TOOTH ACCESS	INTACT + PULP	ACCESSED - PULP	ACCESSED + PULP	INTACT + PULP	ACCESSED - PULP	ACCESSED + PULP
ENDOTOOTH 11 (KaVo Analog)		●			●		
ENDOTOOTH 14 (KaVo Analog)		●			●		
ENDOTOOTH 16 (KaVo Analog)		●			●		
ENDOTOOTH 24 (KaVo Analog)		●			●		
ENDOTOOTH 36 (KaVo Analog)		●			●		
ENDOTOOTH 43 (KaVo Analog)		●			●		



## CARIES TOOTH

### THE MOST REAL CARIES TREATMENT EXPERIENCE

Replicas for training in conservative dentistry  
Simulating true anatomy visually and tactilely  
Darkened soft excavable caries  
Enamel shell covering dentin core

Custom-made on demand  
Phantom-head specific fit



# BIOVOXEL TYPODONT

EndoTooth replicas compatible with Biovoxel Typodont and Phantom Head

## CARIESSTOOTH 11 (Biovoxel Typodont)



- **Upper incisor (11) with simulated caries mesially and distally**
- **Compatible with Biovoxel phantom heads**
- **Simulated enamel shell, dentin core and soft, excavable caries**

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactiley. Caries is in D3 stage and can be dyed with caries marker.

Tooth replica is shaped to fit Biovoxel Typodont models.



**Caries: Mesio- Distal**

Product #	Description
CT11BVX-MD	Mesio - Distal Caries

## CARIESSTOOTH 46 (Biovoxel Typodont)



- **Lower molar with simulated mesio-occluso-distal caries**
- **Compatible with Biovoxel Typodonts**
- **Simulated enamel shell, dentin core and soft, excavable caries**

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactiley. Caries is in D3 stage and can be dyed with caries marker.

Tooth replica is shaped to fit Biovoxel Typodont models.



**Caries: Mesio - Occluso - Distal**

Product #	Description
CT46BVX-MOD	Mesio - Occluso - Distal Caries

# KaVo ANALOG

CariesTooth compatible with KaVo jaws and phantom heads

## CARIESTOOTH 11 (KaVo Analog)



- **Upper incisor (11) with simulated caries mesially and distally**
- **Compatible with KaVo phantom heads**
- **Simulated enamel shell, dentin core and soft, excavable caries**

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactiley. Caries is in D3 stage and can be dyed with caries marker.

Tooth replica is shaped to fit KaVo phantom models.



**Caries: Mesio- Distal**

Product #	Description
CT11KA - MD	Mesio - Distal Caries

## CARIESTOOTH 14 (KaVo Analog)



- **Upper premolar (14) with simulated caries occlusaly**
- **Compatible with KaVo phantom heads**
- **Simulated enamel shell, dentin core and soft, excavable caries**

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactiley. Caries is in D3 stage and can be dyed with caries marker.

Tooth replica is shaped to fit KaVo phantom models.



**Caries: Occlusal**

Product #	Description
CT14KA - O	Occlusal Caries

## CARIESTOOTH 16 (KaVo Analog)



- Upper molar with simulated mesio occlusal caries
- Compatible with KaVo phantom heads
- Simulated enamel shell, dentin core and soft, excavable caries

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactiley. Caries is in D3 stage and can be dyed with caries marker.  
Tooth replica is shaped to fit KaVo phantom models.



Caries: Mesio- Occlusal

Product #	Description
CT16KA - MO	Mesio - Occlusal Caries

## CARIESTOOTH 26 (KaVo Analog)



- Upper molar with simulated mesio-occluso-distal caries
- Compatible with KaVo phantom heads
- Simulated enamel shell, dentin core and soft, excavable caries

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactiley. Caries is in D3 stage and can be dyed with caries marker.  
Tooth replica is shaped to fit KaVo phantom models.

Caries: Mesio - Occluso - Distal



Product #	Description
CT26KA - MOD	Mesio - Occluso - Distal Caries

## CARIESSTOOTH 36 (KaVo Analog)



- Lower molar with simulated caries
- Compatible with KaVo phantom heads, DO and MOD variant
- Simulated enamel shell, dentin core and soft, excavable caries

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactiley. Caries is in D3 stage and can be dyed with caries marker.

Tooth replica is shaped to fit KaVo phantom models.



Caries: Disto- Occlusal



Caries: Mesio - Occluso - Distal

Caries: Undermined Cusp



Product #	Description
CT36KA - DO	Disto - Occlusal Caries
CT36KA - MOD	Mesio - Occluso - Distal Caries
CT36KA - UMC	Undermined Cusp

## CARIESTOOTH 46 PRE ENDO (KAVO ANALOG)



- Lower molar with simulated mesio-occluso-distal caries
- Compatible with KaVo phantom heads
- Simulated enamel shell, dentin core and soft, excavable caries

Lower molar with simulated mesio-occluso-distal caries at the D4 stage, penetrating into the pulp. The simulated carious matter is differentiated from the pulp by color. The pulp chamber and canal entrances can be cleaned of artificial pulp (see the transparent tooth picture). After removing the carious lesion, a significant amount of tooth structure is missing, making it an ideal model for pre-endo build-up training.



Product #	Description
CT46KA - PE	Mesio - Occluso - Distal Caries

**Caries: Mesio - Occluso - Distal**

## CARIESTOOTH 47 (KaVo Analog)



- Lower molar with simulated mesio-occluso-distal caries
- Compatible with KaVo phantom heads
- Simulated enamel shell, dentin core and soft, excavable caries

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactilely. Caries is in D3 stage and can be dyed with caries marker. Tooth replica is shaped to fit KaVo phantom models. If you are interested in different type of fit, please use our contact form.



Product #	Description
CT47KA - MOD	Mesio - Occluso - Distal Caries

**Caries: Mesio - Occluso - Distal**

## P-OCCLUSAL

CariesTooth compatible with  
P-Occlusal models



### CARIESTOOTH 16 (P-Occlusal)

- Upper molar with simulated mesio occlusal caries
- Simulated enamel shell, dentin core and soft, excisable caries
- Designed to fit the P-Occlusal Model

Teeth replicas for restorative dentistry training. Caries is simulated visually and tactilely. Caries is in D3 stage and can be dyed with caries marker.



Product #	Description
CT16PO-MO	Mesio - Distal Caries

Caries: Mesio- Distal

### ENDOTOOTH 16 WITH OCCLUSAL CARIES (P-Occlusal)

- Upper Molar (16 ISO notation)
- Simulated deep occlusal caries at the D4 stage
- Realistic endodontic system
- Opaque
- Designed to fit the P-Occlusal Model

This first molar model features simulated deep occlusal caries at the D4 stage, complete with a realistic endodontic system, including pulp and four canals.

It is ideal for training in pulp capping, pulpotomy, pulpectomy, or other endodontic procedures.



Product #	Description
ET16UMP-PO	Endotooth 16 with Occlusal Caries

# MONOMATERIAL TOOTH

Monomaterial teeth compatible with Biovoxel Typodont phantom heads/jaws for dental training.



## MONOMATERIAL TEETH (BIOVOXEL TYPODONT)

Monomaterial teeth compatible with Biovoxel Typodont phantom heads/jaws for dental training.

## MONOMATERIAL TEETH (KAVO)

Monomaterial teeth compatible with KaVo phantom heads/jaws for dental training.



Product #	Description
MM - BVX	Biovoxel Typodont Teeth
MMKA	KaVo Analog

- ✓ Simple monomaterial teeth
- ✓ Custom made on demand
- ✓ Dentin hardness
- ✓ Phantom-head specific fit
- ✓ Tooth colored shade



## BIOVOXEL TEETH WITH CAVITIES

Monomaterial teeth with cavities compatible with Biovoxel Typodont phantom heads/jaws for dental training.



14D  
MMC-14D-BVX



15MOD  
MMC-15MOD-BVX



16M  
MMC-16M-BVX



17O  
MMC-17O-BVX



24 DO  
MMC-24DO-BVX



25C  
MMC-25C-BVX



26DO  
MMC-26DO-BVX



27M  
MMC-27M-BVX



34D  
MMC-34D-BVX



35MO  
MMC-35MO-BVX



36MOV  
MMC-36MOV-BVX



37O  
MMC-37O-BVX



44DO  
MMC-44 DO-BVX



45DC  
MMC-45DC-BVX



46MO  
MMC-46MO-BVX



46O+V  
MMC-46OV-BVX



47MOD  
MMC-47MOD-BVX



Complete Set  
(17 Types)  
MMC-SET-BVX

# BIOVOXEL TYPODONT JAW

## BioVoxel Dental Models for Phantom Head



Unlock **the next level of dental education** and practice with the BioVoxel Typodont Jaw. Designed for dental professionals and students, this state-of-the-art model offers a **highly realistic, hands-on experience** that **simulates real-life conditions** with precision and detail.

Whether you're perfecting your technique, practicing complex procedures, or teaching others, this model provides a reliable and durable tool for dental professionals at all levels.

Product #	Description
TYPO - UJ - BVX	Regular Upper Jaw
TYPO - LJ - BVX	Regular Lower Jaw
TYPO - ULJ - BVX	Regular Whole Jaw (Upper + Lower)
TYPO - PAROUJ - BVX	Periodontal Upper Jaw
TYPO - PAROLJ - BVX	Periodontal Lower Jaw
TYPO - PAROULJ - BVX	Periodontal Whole Jaw (Upper + Lower)
BTYPOG	Replacement Gingiva





## REPLACEABLE TEETH

Easily interchangeable teeth to replicate a variety of dental conditions and ensure long-term use.



## REALISTIC ANATOMY (INCLUDING ROOTS)

With accurate tooth structure and root anatomy, this model allows you to practice endodontic treatments, caries detection, and restorative procedures.



## TEETH FIXED & RELEASED WITH SCREWS

Teeth are securely fixed and can be released using screws.



## SOFT, REMOVABLE GUMS

The model comes with soft, removable gums that mimic human tissue.



## COPATIBLE WITH LEADING PHANTOMS

Compatible with Biovoxel, KaVo, Frasaco, and Nissin phantom systems for seamless integration into your training setup.

*Get as close to real-life dental practice as possible with a model that replicates both the anatomy and functional mechanics of human teeth and gums.*

### THE MODEL INCLUDES:

- 1x Upper Jaw and 1x Lower Jaw
- 1 set of teeth 32 pcs
- Interchangeable gingiva
- Screw Driver
- Or order separately-Maxilla or Mandible



# BIOVOXEL PHANTOM HEAD

## BioVoxel Dental Models for Phantom Head

The Biovoxel Phantom Head is engineered to provide a **highly realistic** pre-clinical training environment, closely simulating intraoral conditions encountered in daily practice.

Its anatomically **accurate design, ergonomic adjustability, and compatibility** with standard dental units, as well as the ability to be attached to any table, allow for **precise execution of clinical procedures**, including advanced endodontic workflows.

By replicating patient positioning, access, and tactile response, the Phantom Head supports the development of correct technique, ergonomics, and clinical confidence in both educational and research settings.

Product #	Description
PH-BVX	Phantom Head
MASK-BVX	Face Mask for the Phantom



Designed to bring pre-clinical training even closer to real-life practice, the Biovoxel Phantom Head provides unmatched versatility and realism, allowing dental professionals and students to train with confidence and precision.



## KEY FEATURES:

- **Attachable** to dental units or any table
- **Freely adjustable** for ergonomic positioning
- Typodont **jaws with** teeth featuring **real anatomical roots**
- **Soft, replaceable silicone face**
- Compatible with **apex locators**
- Connectable to **suction**
- **Customizable teeth models** for specialized training
- **Regular or periodontal** jaws available





# ANATOMICAL MODELS

Dental Anatomy models with beautiful morphology

## INNERVATED MANDIBLE



**A model of transparent mandible with visualized positions of the neurovascular bundles**

A model of transparent mandible with visualized positions of the neurovascular bundles - n. mandibularis (alveolaris inferior), n. buccalis, n. lingualis. For teaching, demonstrating anatomy or as a decorative addition to your dental office.

Product #	Description
INM01	Innervated mandible

## MANDIBULAR ANESTHESIA MODEL



**Mandible for mandibular anesthesia training. Practice your inferior alveolar nerve block and local or intraligamentary anesthesia techniques.**

The soft tissues are in real anatomical position - after inserting the needle it is possible to check the needle position at the dorsal bony portion of our model. The silicone soft tissues are heavy duty and withstand hundreds of needle insertions. Model is compatible with our Biovoxel phantom head.

Product #	Description
MAM01	Mandibular Anesthesia Model
MAMG	Replacement Gingiva

## ESSENTIAL DENTAL ANATOMY MODELS



- **Distal Teeth Anatomy Models (1x Upper 1x Lower)**
- **Real Size or Enlarged (Width of one enlarged model approx. 7cm)**
- **Nicely visualized occlusal morphology**

Beautifully shaped distal anatomy teeth models. Suitable as an aid for modelation. Models modelled from scratch by us, with professional help from Peter Pintes and inspired by beautiful (and functional) anatomy of János Makó.



Colors available:

Product #	Description
EDAM-S	Real Size
EDAM-L	Enlarged

## OCCLUTOOTH



- **Two models of distal teeth (1x Upper Jaw + 1x Lower Jaw)**
- **Available in two variants: A, B**
- **3 colors available: yellow, blue, grey**
- **Models with occlusal Black I. cavities**
- **Real size (1:1 ratio to real teeth)**

**Model A**



Ideal for occlusal morphology modeling training. Recommended to be used with BioVoxel's Essential Dental Anatomy Models. One package contains 2 models, as seen on the primary product picture

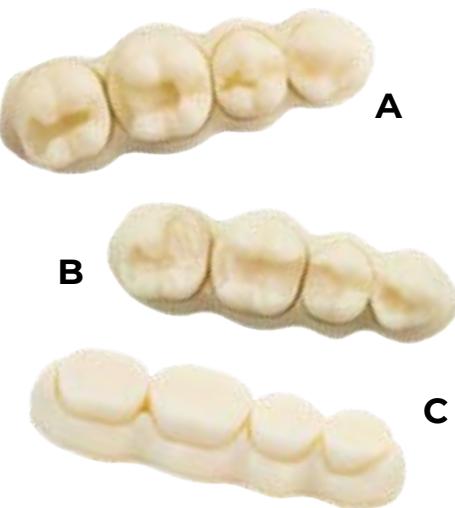
OccluTooth variant A and variant B are different in the cavity shape configuration – in variant A, the cavities are more concave, shallow, and "hide" more of the occlusal morphology; in variant B, they are shaped more in a classic Black I cavity preparation style.

**Model B**

Colors available:

Product #	Description
OT- A	Model A - 1 pair
OT- B	Model B - 1 pair
OTP10 - A/B	10 Pairs of any model A or B

## CAVITOOTH



- **Two models of distal teeth (1x Upper Jaw + 1x Lower Jaw)**
- **Available in two variants: A,B**
- **3 colors available: yellow, blue, grey**

Simple models of distal segment of a lower jaw with simulated cavities. Gingival sulcus allows for a matrix placement. Please see the pictures for a detailed view of the extent and type of cavities. Recommended to be used with BioVoxel's Essential Dental Anatomy Models.

Product #	Description
CAVT-A	Model A
CAVT-B	Model B
CAVT-C	Model C
CAVT10 - A/B/C	10 Pairs of any model A or B

Colors available:

## POST-ENDO MODEL



- **Post-Endo model created for Dr. Černy's hands on courses.**
- **5 different teeth with different tissue loss.**

Ideal for FRC post and tooth build up training - perfect for challenging approximal wall restoration. The gum is retractable by cord or teflon. Canals are ended blindly - with apical stop, ready for FRC insertion. Can be used together with EndoPan Pro or Tableclamp Basic holders allowing you to position the model at any angle needed, facilitating both direct and indirect work.



Model A



Model B

Product #	Description
PEM - A	PostEndo Model A
PEM - B	PostEndo Model B

# SURGICAL MODELS

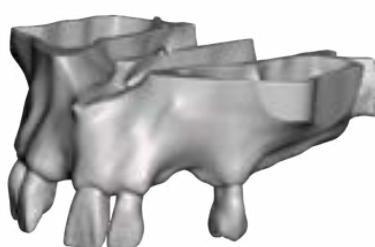
## SURGICAL TRAINING JAW MODEL



### Features 4 Realistic Defect Sites:

- Posterior gap at teeth #15-16, with sinus located just 3-4 mm above
- Horizontal frontal bone defect at tooth #11
- Combined horizontal and vertical defect at teeth #23-24

Unilateral shortened dental arch with horizontal concavity and vertical defect (distal to the second quadrant; sinus proximity: ~6-8 mm)



Product #	Description
SURTM01	Surgical Training Jaw Model

## AUGMENTATION + IMPLANT MANDIBLE MODEL



This mandible features simulated cortical and cancellous bone, plus a mandibular canal - the perfect setup for implant placement and augmentation training.



Product #	Description
AUGIM	Augmentation + Implant Mandible Model

# ACCESSORIES



## ENDO ORGANIZER



### Includes:

- **Endo sponge with endo ruler**
- **Cone organizer**
- **Notches for loading MTA or similar material onto the tool**

This organizer is for training purposes only as it is not autoclavable, only chemically sanitizable.

The package includes an organizer and 3 replaceable sponges.

Product #	Description
END01	Endo Organizer

## ENDO PAN BASIC



**Practical and simple table holder for fixing any training tooth.**

- Fixes the tooth firmly, allows connection of the apexlocator, includes a collection container for the rinsing solution.
- The endopan is fixed against the table with a solid table vise
- The table vise allows fixation on tables in thickness from 0.5cm-4cm

## ENDO PAN PRO



**Advanced Tooth Fixation Solution**

The EndoPan Pro is the upgraded version of our EndoPan Basic

- **Firm Tooth Fixation:** Securely holds the tooth in place for stable treatment.
- **Apex Locator Connection:** Easily connect an apex locator for accurate measurements.
- **Rinsing Solution Container**

- **Adjustable Angles:** Position the tooth in any angle – work in direct or indirect view, as needed.
- **Versatile Clamp:** The end clamp can be unscrewed and replaced with a Bio voxel Typodont Jaw for more options.
- **Solid Table Vise:** Fixes the EndoPan Pro firmly to your work surface, compatible with table thicknesses from 0.5 cm to 4 cm.



Product #	Description
EPB01	EndoPan Basic
EPP01	EndoPan Pro

## TABLECLAMP



The TableClamp Basic is a practical table holder which allows you to fix the tooth in various angles.

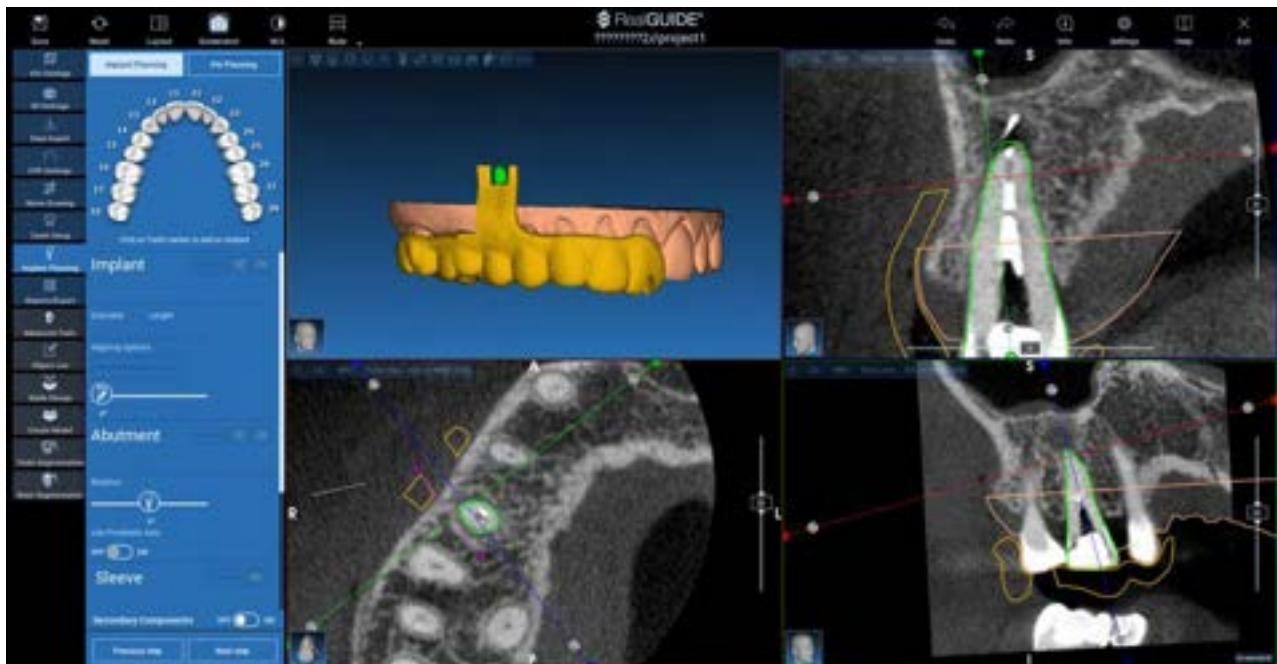
- **Firm Tooth Fixation:** Securely holds the tooth in place for stable treatment.
- **Apex Locator Connection:** Easily connect an apex locator for accurate measurements.
- **Adjustable Angles:** Position the tooth in any angle – work in direct or indirect view, as needed.
- **Versatile Clamp:** The end clamp can be unscrewed and replaced with a Biovoxel Typodont Jaw for more options.
- **Solid Table Vise:** Fixes the EndoPan Pro firmly to your work surface, compatible with table thicknesses from 0.5 cm to 4 cm.

Product #	Description
TCB01	TableClamp Basic



# SURGICAL GUIDES + 3D PRINTING

Precise planning and the use of guides during procedures result in greater efficiency and more predictable outcomes.

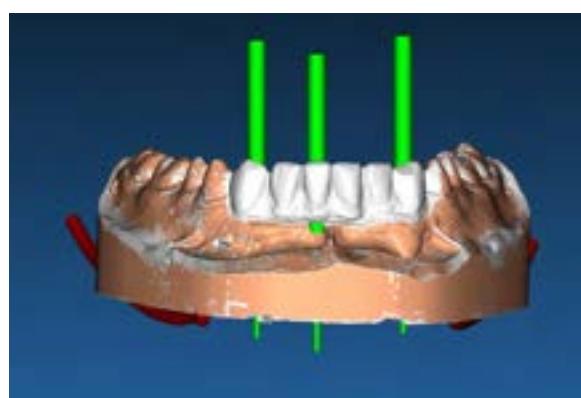
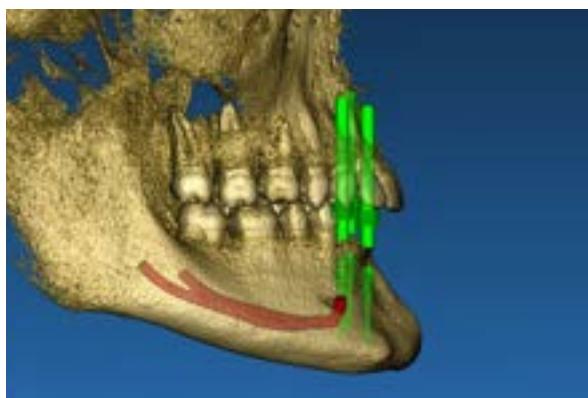


## PRECISION & INNOVATION IN SURGICAL PROCEDURES

Many complex surgical procedures require advanced software analysis for accuracy and efficiency.

Bio voxel provides cutting-edge technological support, **assisting in treatment planning and the production of precise surgical guides**. These guides ensure controlled drilling on hard tissues at the **exact location, depth, and angle** required for implant placement and various other surgical applications.

This enhances success rates, reduces surgical time, and improves patient outcomes. Our cutting-edge solutions make surgical procedures safer, faster, and more predictable.



# ADVANTAGES OF SURGICAL GUIDES



## HIGH PRECISION & ACCURACY

Ensures exact implant and surgical tool placement with optimal depth, angulation, and position.



## REDUCED SURGERY TIME

Streamlines procedures, minimizing chair time and improving workflow.



## IMPROVED SAFETY

Lowers the risk of complications by avoiding critical anatomical structures.



## BETTER PATIENT EXPERIENCE

Less invasive procedures result in reduced pain, swelling, and post-operative discomfort.



## PREDICTABLE OUTCOMES

Enhances treatment planning for consistent and reliable surgical results.



## MINIMIZED TRAUMA

Reduces damage to surrounding tissues, leading to faster healing and improved recovery.



## COST-EFFECTIVE

Saves time, streamlines operations, provides peace of mind, and reduces subsequent material expenses (for tissue reconstruction or prosthetics).



## ENHANCED WORKFLOW FOR DENTISTS

Simplifies complex procedures, increasing efficiency and confidence in surgical execution.



# OUR VALUED PARTNERS



Živé Zuby



Univerzita Palackého  
v Olomouci



I. LÉKAŘSKÁ  
FAKULTA  
Univerzita Karlova



JESSENIOVA LEKÁRSKA  
FAKULTA V MARTINE  
Univerzita Komenského  
v Bratislave





1. LÉKAŘSKÁ  
FAKULTA  
Univerzita Karlova



CHRZANOWSKI  
dental care



Dental-Art.education

TEACHING WITH PASSION



Endodonti  
AKADEMIN



MUNI  
LÉKAŘSKÁ  
FAKULTA



Dentamec

curaden

better health for you



PETRAMED  
U DOBRÝCH ZUBÁROV



DR. VOLOM  
DENTAL

ďangel  
elite dental center

ENDOSEVILLA  
clínica dental

DENTAL TOPICS



LÉKAŘSKÁ FAKULTA  
V HRADCI KRÁLOVÉ  
Univerzita Karlova

# MEET OUR TEAM



**MDDR. MAROŠ ČIŽMÁR**  
CEO



**MDDR. MARIETTA**  
ČIŽMÁROVÁ



**DR. OLEXANDR**  
PAKHOMOV



**KARINA MAŇOVÁ, BSBA**



**PATRIK KRISTL**



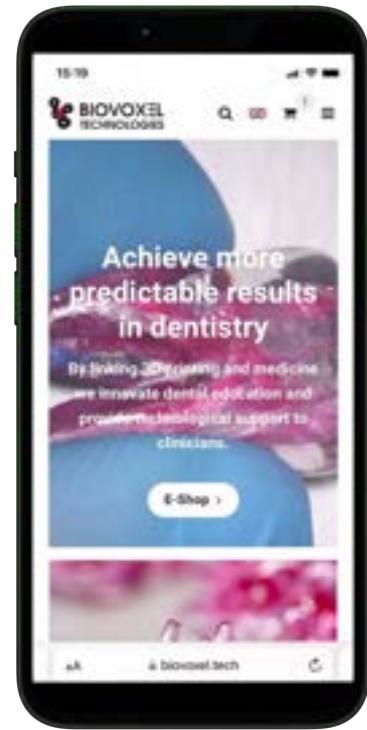
**RICHARD POSPÍŠIL**

**DEVÍN - HOME OF BIOVOXEL TECHNOLOGIES**



# SPARE PARTS

If you need to order spare parts, please contact us at [sales@bio voxel.tech](mailto:sales@bio voxel.tech) or visit our website.



# FEEDBACK

We Value Your Feedback!

If you have any questions or feedback towards further improvements of the models, please do not hesitate to contact us at [info@bio voxel.tech](mailto:info@bio voxel.tech) or whatsapp.



We wish you many high-quality training sessions!

*BioVoxel Technologies Team*





WWW.BIOVOXEL.TECH