UNIT 14

ROOT CANAL TREATMENT (RCT)

24 **1. Listen to the recording about root canal treatment and arrange the particular stages in the right order.**
Wysłuchaj tekstu o zabiegu leczenia kanałowego i uporządkuj jego etapy w odpowiedniej kolejności.

GLOSSARY

abscess – ropień, wrzód
apex locator – endometr
articulating paper – kalka zgryzowa
dental dam – koferdam
drill – borować, wiercić
due to – z powodu
endodontic treatment – leczenie endodontyczne
extent – zakres, zasięg
inflamed – objęty stanem zapalnym
irreversible – nieodwracalny
pulpitis – stan zapalny miazgi
numb – odebrać czucie, powodować drętwienie
obturate – uszczelnić, zamknąć, wypełniać
pulpectomy – ekstyrpacja (usunięcie) zainfekowanej miazgi zęba
scrape off – zdrapać, zeskrobać
severe – ciężki, silny
sodium hypochlorite – podchloryn sodu
solution – roztwór
spread – rozprzestrzeniać, szerzyć
undergo – poddać się (czemuś), przechodzić

LIVEWORKSHEETS

Root canal treatment (RCT)

A root canal treatment is the most frequently performed **endodontic treatment**. If the pulp is:

- dead **due to** decay,
- **inflamed** (but cannot heal on its own = **irreversible pulpitis**),
- badly damaged due to trauma or previously done dental work,



An RCT may be performed in order to save the tooth. To save the tooth, a dentist must first remove the pulp. Leaving the pulp that can already be infected inside the pulp chamber may lead to tooth **abscess** or tooth extraction. In extreme cases, the infection may **spread** to the jawbone and cause bone loss. RCT is not a necessity; it is an option. If a patient does not want to **undergo** root canal treatment, the tooth should be extracted and replaced (e.g. with an implant).

STAGES OF A ROOT CANAL TREATMENT:

☐ An X-ray picture is taken to determine:

- the shape of the tooth,
- the width, length and shape of the canals,
- the number of canals,
- the **extent** of decay,
- whether there are any signs of bone infection.

☐ Once the canals are prepared, rinsed and dried, they are sealed with a permanent material which is placed inside the canal. The most frequently used material is gutta-percha – a thermoplastic natural latex. If there is no infection, cement is placed on top of gutta-percha to seal off (**obturate**) the canal.

LIVEWORKSHEETS

☐ The **dental dam** is removed and **articulating paper** is used to check the patient's occlusion.

☐ The dentist uses a file to **scrape off** debris and dentine from the walls of the canal. The files are also used to shape the canals and make space for the filling material.

☐ If there is a **severe** infection, medication may need to be placed inside the tooth. Once the medication is placed inside the tooth, a temporary filling is placed over it to help keep the canal clean and infection-free.



☐ A crown of filling is placed to restore the tooth's original shape and appearance.

☐ An anaesthetic is administered to **numb** the area around the tooth. Then the dental assistant places a rubber dam around the tooth to isolate it and keep it dry during the procedure. The dam also protects the patient's throat and mouth so that materials and tools do not accidentally fall in as they may cause injury or be swallowed.

☐ Next, the dentist uses a high-speed handpiece to **drill** a hole in the coronal partition of the tooth to get to the pulp chamber. Then the dentist uses an endodontic explorer to locate the canals.

☐ After that, the canals are irrigated to kill bacteria in the canal (biochemical cleaning). The irrigation **solution** needs to be used throughout the procedure to wash away excess debris. All tooth canals must be cleaned this way.

☐ The dead or infected pulp is removed (**pulpectomy**). The entire canal must be cleaned and filed so the dentist must know exactly how long the canal is. An **apex locator** is used to determine the length of the canals. The instruments are measured with a milimeter ruler.

LIVEWORKSHEETS

2. Listen to the recording again and answer the following questions. 24
Posłuchaj nagrania jeszcze raz i odpowiedz na poniższe pytania.

1 When is RCT necessary? Are there any other treatment options?

2 What is the role of a rubber dam?

3 What is pulpectomy?

4 What happens once the canals are cleaned and filed?

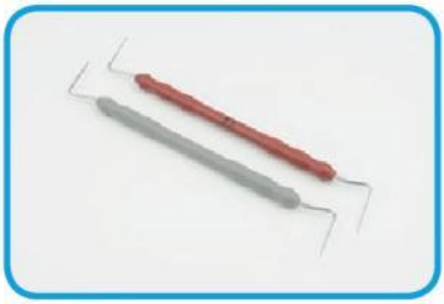
5 When should medication be placed inside a tooth?

3. Label the pictures with the suitable names.
Podpisz zdjęcia odpowiednimi nazwami.











LIVEWORKSHEETS

4. What is the role of the following instruments and materials during root canal treatment?

Jaką rolę pełnią poniższe narzędzia i materiały podczas zabiegu leczenia kanałowego?

1 rubber dam – _____

_____

2 high-speed handpiece – _____

_____

3 sodium hypochlorite – _____

_____

4 gutta-percha – _____

_____

5 articulating paper – _____

_____

6 endodontic files – _____

_____

5. Complete the sentences with the suitable verbs.

Uzupełnij zdania odpowiednimi czasownikami.

Irrigate File Check Take
Remove Measure Numb Isolate

1 _____ an X-ray.

2 _____ the area around the tooth.

3 _____ the tooth with a rubber dam.

4 _____ the length of the canals.

5 _____ the infected pulp.

6 _____ the canals.

7 _____, clean and dry the canals.

8 _____ occlusion with articulating paper.

LIVEWORKSHEETS

6. Match the pictures with the suitable descriptions of the stages of root canal treatment.

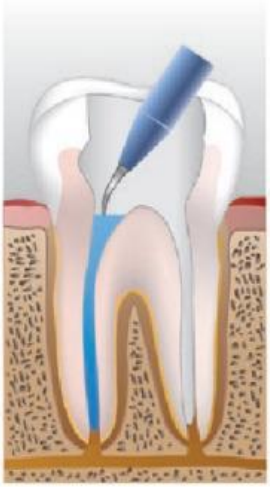
Dopasuj rysunki do odpowiednich opisów etapów leczenia kanałowego.

- ☐ Canals are filled with gutta-percha.
- ☐ The / An opening is sealed with filling.
- ☐ A crown is cemented onto the rebuilt tooth.
- ☐ Canals are washed and dried.
- ☐ Files are used to remove the infected pulp and to clean the canals.



Infected tooth with abscess in the root











LIVEWORKSHEETS

7. Look at the pictures of other instruments which can be used during RCT. Do you know what they are used for?

Spójrz na zdjęcia innych narzędzi, których można używać w trakcie zabiegu leczenia kanałowego. Czy wiesz, do czego służą?



8. Translate the following expressions.

Przetłumacz poniższe wyrażenia.

1 to irrigate the canals – _____

2 to save a tooth – _____

3 the extent of decay – _____

4 a temporary filling – _____

5 to scrape off debris – _____

6 to undergo root canal treatment – _____

7 remove the rubber dam – _____

8 to cause bone loss – _____

LIVEWORKSHEETS