THE MANAGEMENT OF
Common Endodontic Emergencies
According to an American Dental Association report (2010), general practitioners average **230 walk-in/emergency patients per year**.

An estimated **85%** of these emergencies arise from pulpal or periapical disease.

General dentists report that they refer only **43%** of their total patients to an endodontist in a typical year, and **60%** of dentists are likely to perform an endodontic procedure that is moderately complicated (American Association of Endodontists survey). Therefore, most general practices prepare to diagnose and treat many endodontic emergencies.

**CLINICAL INSIGHT: TREATING EMERGENCY PATIENTS**

There are two common emergency situations patients will present with:

1. when the pulp is vital and they have irreversible pulpitis
2. when they come in with a nonvital pulp and an acute alveolar abscess with or without swelling

These situations are handled in completely different ways.

*Recommendations courtesy of Gary Glassman, DDS, Endodontic Specialists, Toronto, and University of Toronto, Faculty of Dentistry.*
Just as an airline pilot must complete a pre check flight list before embarking on his/her journey, so must the clinician when a patient presents to the clinic with facial pain. A systematic approach to endodontic diagnosis must be adhered to when collecting the information on which a diagnosis and a subsequent treatment plan will be based.

Through clinical experience and intuition, up to 85% of diagnoses can be made by just paying attention to the patient’s complaint through active listening.

By adhering to the S.O.A.P. principle of endodontic diagnosis, the clinician should be able to make a dual diagnosis: 1. pulpal; and 2. periradicular.

**S.O.A.P.**

**Subjective** interview directing the patient to describe and localize the condition. Through “active listening,” often the origin of the patient’s symptoms are ascertained.

**Objective** clinical tests may include cold, hot, and electric tests where necessary.

Once the information is gathered, then **Assessment** of the information is made.

**THEN A PLAN OF TREATMENT IS PRESCRIBED.**

Once the clinician has done the subjective interview, gained all of the patient information, reviewed the chief complaint, and completed the clinical exam, then that information must be gathered and assessed, and a diagnosis made.

An action plan must be developed and the appropriate treatment for the root canal procedure prescribed, either to relieve the patient’s pain immediately or to complete the endodontics definitively.
When patients present with hot/cold sensitivity that may linger and spontaneous pain, and a diagnosis of irreversible pulpitis is made, the objective is to remove the irritating pulp. After access is made into the pulp chamber, the root canal is shaped with hand files. The process of shaping will ultimately remove the inflamed pulp. It’s not necessary to do a complete shaping of the root canal. Instead, the objective is to remove the irritating pulp tissue and provide the patient with relief.

Once that’s done, an intracanal medicament of calcium hydroxide is placed in the pulp chamber and a Lentulo spiral is used very gently to place it into the coronal and middle third of the root canal space.

Finally, a temporary filling is placed, and the patient is dismissed with the appropriate nonsteroidal anti-inflammatory drug.

**FIGURE 1**
Irreversible pulpitis.
*Courtesy of Dr. Filippo Santarcangelo, Italy.*
NONVITAL SITUATION WITH PAIN AND SWELLING

When patients present with a nonvital situation, quite often they come in with extreme pain and swelling. The basic tenet to relieve their discomfort is to effect drainage, either through the tooth or through the soft tissue.

If there’s a soft, fluctuant swelling, incision into that area with a fresh, sharp scalpel in order to effect drainage is recommended. If drainage can be obtained through a tooth, it’s even more desirable. However it’s very difficult to anesthetize patients who are swollen, because there’s an acidic environment around that tooth that will push the anesthetic molecules away. Ultimately, the objective is to get in and get out quickly.

If the patient is experiencing systemic symptoms such as fever, malaise, lymphadenopathy, and/or is immunologically compromised, as long as his or her medical history allows it, and the patient is not allergic, I’ll prescribe amoxicillin, 500 mg, 3x a day for a week.
NONVITAL SITUATION WITH PAIN BUT WITHOUT SWELLING

Although incision and drainage are often the way to relieve patient discomfort, sometimes patients don’t have swelling but they are in severe pain. The best way to effect drainage is to make access into the tooth. Quite often as soon as access is made, there is drainage of pus and/or red blood cells. At this point a decision has to be made: do we close the tooth, or do we keep it open to drain?

Some schools of thought recommend not leaving a tooth open to drain. In that case, have that patient stay in the chair until the drainage stops. It may stop after 5-10 minutes, or sometimes it can take up to a couple of hours.

If drainage cannot be stopped, my recommendation is to have patients go on warm saltwater rinses for the next 24 to 72 hours. Then, when the patient comes back, I re-irrigate the canal. If drainage stops, I instrument the canal very lightly, then place an intracanal medicament of calcium hydroxide and a temporary restoration. I’ll then reappoint the patient for the following week to complete the endodontics.

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FIGURE 2
Non-vital pulp with acute alveolar abscess and pus draining from the tooth.
*Courtesy of Dr. Filippo Santarcangelo, Italy.*
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