



## What Medical Emergencies Should a Dental Office be Prepared to Handle?

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- Dentists must be prepared to manage medical emergencies which may arise in practice.
- Studies have shown that 20-50% of Dentist had a patient with a true medical emergency in any one year period.

90% were mild

~8% were considered to be serious

35% were found to have an underlying disease



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- Most emergencies occurred during and after anesthesia
  - Over 60% were from syncope and 7% were caused by hyperventilation

# Most Common Medical Emergencies

- Asthma
- Epileptic Seizures
- Anaphylactic Shock and Allergies
- Diabetes (hypoglycemia/hyperglycemia)
- Syncope
- Myocardial Infarction

# Asthma

**Causes:** Inflammation of the lower respiratory tract and contraction of the bronchial smooth muscle.

**Signs and Symptoms:** Wheezing when exhaling, coughing, shortness of breath

**Treatment Precautions:**

- Make sure patient has their medication with them at time of appointment
- Use rubber dam only if patients nose and sinuses are clear
- For controlled asthmatics, LA with EPI should be used judiciously, this is because the sulphite used as a preservative may bring about an allergic attack.
- Agree on a signal for distress with the patient before beginning treatment
- Avoid Aspirin or NSAIDS

**Treatment:**

- Have patient signal you that they need their medication
- Have patient administer their own medication (bronchodilators)
- Administer Oxygen if deemed necessary

# Epileptic Seizures

## **Causes:**

- Seizures are caused by a temporary abnormal electrical activity in a group of brain cells

## **Signs and Symptoms:**

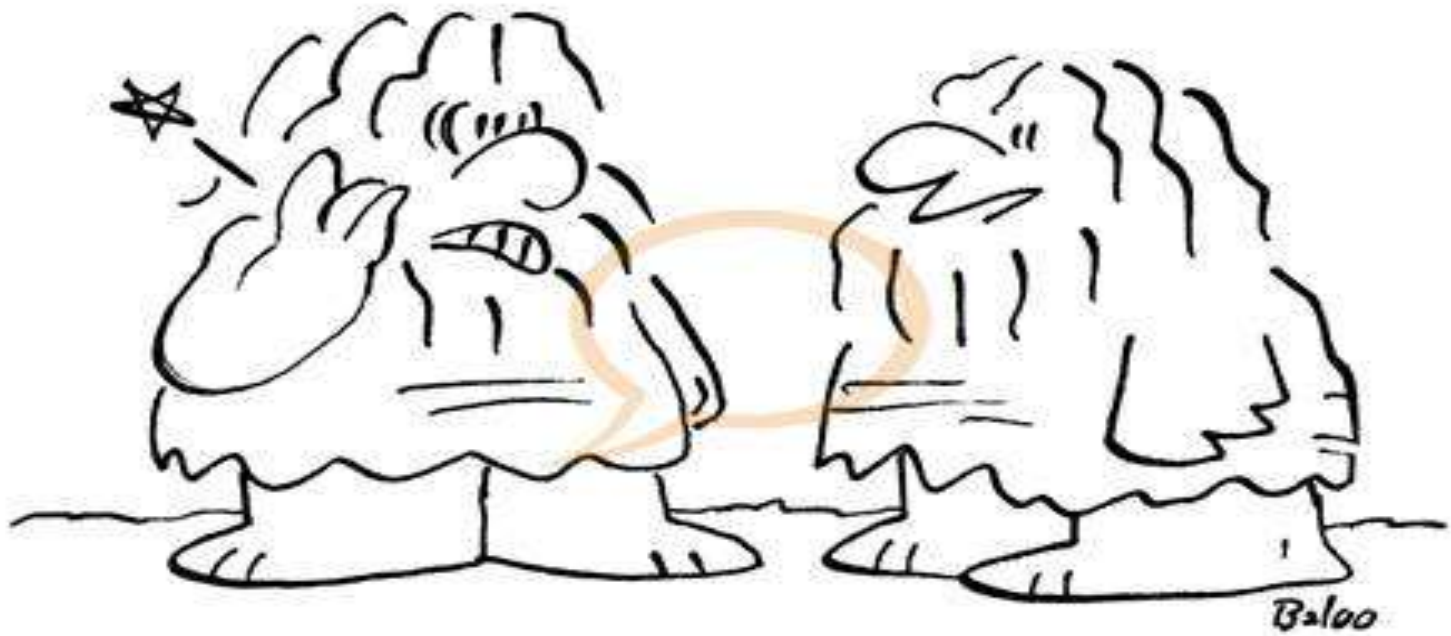
- Patient may have a previous history of seizures
- Patient may recognize they are coming by a preceding “aura”
- Altered consciousness levels
- Muscle rigidity
- Convulsions
- Apnea (temporary absence or cessations of breathing)
- Cyanosis ( a bluish/purplish discoloration due to deficient oxygenation of the blood)

## **Treatment Precautions:**

- If patient usually recognizes when seizures are about to happen discuss a signal they can give about an impending seizure
- Make sure patient has taken their medication that day
- Have Oxygen Ready
- Be prepared to remove clamp, rubber dam etc.

## **Treatment:**

- Place patient on his side on the floor away from objects until seizure subsides
- If patient vomits, suction
- If seizure lasts longer than 5 minutes, call EMS
- Administer Oxygen if deemed necessary



"AN IMPACTED WISDOM TOOTH? -- WELL, THAT'S WHAT YOU GET FOR EVOLVING."

# Anaphylactic Shock/ Allergies

## **Causes:**

- A severe allergic reaction

## **Signs and Symptoms:**

- Respiratory distress, wheezing
- Airway obstruction
- Rapid, weak pulse
- Palpitations
- Swelling of lips or eyelids, eyelids may itch and tear
- Difficulty swallowing
- Nausea and vomiting
- Urticaria (hives)

## **Treatment Precautions:**

- Always perform a complete medical history to reduce the likelihood of an allergen exposure
- If patient usually carries an Epi-Pen make sure they have it with them at time of appointment

## **Treatment:**

- Call EMS immediately
- Administer epinephrine
- If patient is conscious give dose of Benadryl
- If pulse present, elevate legs, give oxygen
- If no pulse or breathing, begin CPR
- If patient vomits, suction
- Continue CPR or monitor vital signs until EMS arrives



# Diabetes

Elevated glucose levels in blood and urine. Persons diagnosed with Diabetes may suffer from too high or too low blood sugar at times depending on medications, food intake, illness or stress.

## Signs and Symptoms:

### Hypoglycemia:

- Rapid onset –within minutes (can be fatal)
- Nervousness
- Pallor
- Weak, dizzy
- Hunger, nausea
- Mental confusion
- Lethargy or belligerence
- Decreased rate of breathing
- Increased heart rate
- Decrease in blood pressure
- Seizures
- Tingling sensation in feet/hands
- Loss of consciousness, coma

### Hyperglycemia

- Slow Onset – hours or days or weeks
- Hot, dry
- Flush malaise
- Nausea vomiting
- Stupor
- Drowsy
- Irritability
- Headache
- Acetone odor
- Decreased rate of breathing
- Increased heart rate
- Decrease in blood pressure

### Treatment Precautions:

- Ensure patient has eaten and has had their medication before the appointment
- Keep appointments short
- Have a sugar supplement on hand

### Treatment:

- If conscious and able to swallow well, give sugar supplement. Call EMS if patient doesn't feel better in 15 minutes or becomes unconscious.
- If unconscious call EMS immediately

# off the mark

by Mark Parisi

www.offthemark.com

1. CALL DENTIST ABOUT MISSING DENTURES.
2. CALL DOCTOR ABOUT EMBARRASSING NEW DISCOMFORT.



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# Syncope

- The most Common type of emergency in the dental clinic
- Temporary loss of consciousness with inability to maintain postural control

## **Causes:**

- Fear, pain or stress
- Fatigue
- Overly warm environment
- Decreased blood flow to the brain, vasovagal event

## **Signs and Symptoms:**

- Restlessness
- Pallor
- Feeling “too warm”
- Cold sweats, clammy skin
- Nausea, generally feeling unwell
- Breathing may be irregular
- Slow feeble pulse
- Convulsive movements, twitching
- Loss of consciousness

## **Treatment:**

- Lay patient in a horizontal “head below feet” position
- Loosen tight clothing
- Place cold towel on forehead
- Monitor ABC’s (Airway, Breathing, Circulation)
- Give Oxygen
- Consider oral glucose in conscious patients in diabetic patients who are conscious and able to swallow

# Chest Pain

- A heart attack occurs when a part of the heart muscle is deprived of oxygen.
- The affected area of the heart muscle is damaged or dies.
- Chest pain or pressure may be a signal of an impending heart attack.
- Patients may also experience shortness of breath, fainting, nausea or vomiting, sweating, anxiety.

## Treatment:

- Aspirin
- Oxygen
- EMS

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