

# First aid in the dental practice: an overview

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VERIFIABLE CPD PAPER

## IN BRIEF

- Dentists or their staff may be required to administer first aid to a person in their dental practice.
- It is important to ensure that staff are appropriately trained.
- A3 First Aid in the Workplace aide-memoir poster is now available.

GENERAL

First aid encompasses a wide range of scenarios ranging from simple reassurance following a minor mishap to dealing with a life-threatening emergency. Dentists may need to provide first aid in their dental practice to a patient, relative or member of staff. This article provides an overview to first aid in the dental practice, including priorities, responsibilities when providing first aid, assessment of the environment and the casualty (primary survey & secondary survey). The new A3 'First Aid in the Workplace' poster is now available and is included as an insert in this issue (*BDJ* Vol. 220, Issue 12).

## INTRODUCTION

First aid, defined as the initial assistance or treatment provided to someone who is injured or suddenly taken ill, covers a wide range of scenarios ranging from simple reassurance following a minor mishap to dealing with a life-threatening emergency. Dentists may need to provide first aid in their dental practice to a patient, relative or member of staff.

The aim of this article is to provide an overview to first aid in the dental practice.

## PRIORITIES OF FIRST AID

The priorities of first aid are to:

- Call 999 for an ambulance in a timely manner (if required)
- Ensure the safety of the casualty and work colleagues is maintained
- Keep the casualty alive: attention to airway, breathing, circulation, disability and exposure is paramount
- Prevent the casualty from deteriorating
- Promote the recovery of the casualty
- Provide reassurance and comfort to the casualty.

## RESPONSIBILITIES WHEN PROVIDING FIRST AID

Remember the golden rule: 'first do no harm' while applying the term 'calculated risk'.<sup>1</sup>

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Responsibilities when providing first aid include:

- Assessing the situation quickly and safely
- Ensuring appropriate help is summoned
- Protecting the casualty and others from possible harm
- Identifying, as far as possible, the cause of the illness or the nature of the injury
- Providing first aid within your own sphere of expertise and competence
- Ensuring that any first aid provided follows current and up-to-date guidelines where appropriate
- Minimising the risk of cross-infection
- Reporting observations/findings to those taking over the care of the casualty
- Adhering to the GDC's *Standards for the dental team*<sup>2</sup>
- Maintaining the casualty's confidentiality following GDC's guidelines
- Obtaining the casualty's consent (if possible) before administering first aid.<sup>3</sup>

## ASSESSMENT OF THE CASUALTY

### Safe approach

The initial priority is always to check for any dangers. Approach the casualty carefully, ensuring there is no danger to either the rescuer or to him/her: look out for hazards, for example, electricity, fire and traffic. Measures should be taken to minimise the risk of cross infection.

### Primary survey

Once it is deemed safe to approach, the priority is then to assess the casualty for

life-threatening conditions and provide life-saving treatment as required. This phase, often referred to as the primary survey, involves assessing:

- Airway
- Breathing
- Circulation
- Disability
- Exposure.

### Secondary survey

Once it is established that the casualty is out of immediate danger, perform a secondary survey. Depending on the situation, this could involve:

- Taking a history
- Looking for external clues
- Ascertaining the mechanics of injury
- Assessing signs and symptoms
- Head to toe survey.<sup>1</sup>

### Definitive care

Depending on the scenario, definitive care could involve:

- Providing advice only
- Advising the casualty to visit his GP
- Arranging transport to take the casualty to hospital
- Calling 999 for an ambulance.

### Calling for an ambulance

If it is necessary to call for an ambulance: dial 999 (or 112) to alert the emergency services and request the service required (usually ambulance). The following information is important:

- Name
- Telephone number
- Exact location of the dental practice
- Time of the incident
- Exact details of the incident; if it is relevant the number of casualties, their age and sex and any information known about their condition
- If appropriate, details of any hazards for example, gas and toxic substances.

## MEASURES TO MINIMISE THE RISK OF CROSS INFECTION

Take measures to minimise the risk of cross infection for example, hand-washing and wearing disposable gloves. Blood is the single most important source of the transmission of HIV and hepatitis B virus and universal precautions should be taken to avoid bodily fluids. Care with sharps is paramount as both HIV and the hepatitis B virus have been contracted by healthcare workers following needle-stick injuries.

## ENVIRONMENTAL HAZARDS

There are a number of environmental hazards that may be encountered when providing first aid including, gas, electricity, fire and poisoning.

## Gas

If there is a smell of gas, if a gas leak is suspected or if there are concerns that fumes containing carbon monoxide are escaping from a gas appliance:

- Call the National Gas Emergency Service immediately on 0800 111 999
- Open all doors and windows to ventilate the property and disperse the gas
- Do not turn on/off any electrical switches (including the doorbell)
- Extinguish all naked flames, do not smoke, strike matches or do anything which could cause ignition
- If there are any electrical security entry phones/locks, please open door manually.<sup>4</sup>

## Low voltage electricity

Injuries caused by electricity can potentially occur in the dental practice resulting from contact with a low-voltage domestic current, usually due to a faulty switch or appliance. The presence of water presents additional risks. The electrical contact needs to be broken.


Switch off the current at the mains or meter point if it can be easily reached; otherwise remove the plug or wrench the cable

free.<sup>1</sup> If unable to reach the plug, cable or mains:


- Stand on some dry insulating material for example, telephone directory, wooden box
- Using a wooden object for example, broom, push the casualty's limbs away from the electrical source or push the latter away from the casualty. Do not use anything metallic
- If the casualty still remains attached to the electrical current, carefully loop some rope around his ankles and pull him away from the source.<sup>3</sup>

## Fire

- Raise the alarm: activate the nearest fire alarm and warn people who are at risk; call 999 (or 112) for the fire and rescue services
- Vacate the building following the fire escape route if appropriate; ensure all staff, patients etc meet at assembly point. Undertake roll call
- Don't use an elevator – if the electricity fails the elevator may abruptly stop working; also the elevator shaft can act like a chimney, sucking up flames and fumes



# FIRST AID IN THE WORKPLACE

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### Suspected Heart Attack

**Signs may include:**

- Central crushing chest pain
- Pain may spread to arms, throat, jaw, shoulders, back or stomach
- Shortness of breath & sickness
- Pale skin & sweating

**Action:** call 999, comfortable position

### Severe Bleeding

- Apply pressure
- Elevate wound
- Lie flat, raise legs
- Keep warm

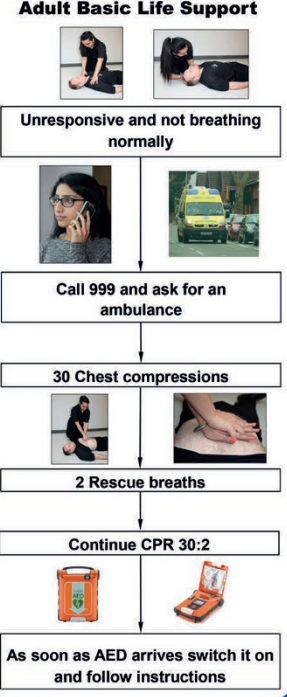
### Choking

- Encourage to cough
- Up to 5 back blows
- Up to 5 abdominal thrusts
- Repeat above if necessary
- Call 999

### Stroke: Act FAST

- FACIAL weakness: smile? mouth or eye drooped?
- ARM weakness: raise both arms?
- SPEECH problems: speak clearly and understand what you say?
- TIME to call 999

### Adult Basic Life Support



### Faint

- Lie flat
- Raise/support legs
- Loosen clothing

### Eye Injury

- Lie flat, support head
- Advise patient keep 'good eye' still
- Dressing over injured eye
- Call 999

### Minor Burns / Scalds

- Cold running water (at least 10 mins)
- Remove constrictions
- Cover (clean, non fluffy material)
- Seek medical help if necessary

### Convulsions

- Remove hazards/cushion head/loosen clothing
- Usually call 999; post convulsions: recovery position

### Asthma

- Sit up/forwards, relief inhaler
- Call 999 if necessary

### Unconscious, breathing normally

- Recovery position
- Call 999

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Adult basic life support algorithm reproduced with kind permission of the Resuscitation Council (UK), London

References: Resuscitation Council UK (2015) [www.resus.org.uk](http://www.resus.org.uk), St John Ambulance (2015) [www.sja.org.uk](http://www.sja.org.uk), British Heart Foundation (2015) [www.bhf.org.uk](http://www.bhf.org.uk) & Stroke Association (2015) [www.stroke.org.uk](http://www.stroke.org.uk)

OFQUAL accredited First Aid Courses run at Walsall Healthcare NHS Trust: [www.thewhea.co.uk](http://www.thewhea.co.uk) for further information. • Poster can be downloaded from [www.firstaidfast.co.uk](http://www.firstaidfast.co.uk)

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Fig 1 First Aid in the Workplace A3 poster can be downloaded from [www.thewhea.co.uk](http://www.thewhea.co.uk)

- If in a room full of smoke, remain close to the floor and if possible cover the nose and mouth with a damp cloth or towel
- Close doors on a fire
- Never open a door that is hot or has hot handles – suggests that a fire is raging behind it
- If unable to find an escape route, locate a fire-free room that has a window; shut the door, open the window and call out for help, and remain close to the floor; if possible block any gaps under the door
- Even if it is dark, don't turn on the light as this may cause an explosion
- If clothing is on fire: stop, drop and roll: stop the casualty from running around

as this can fan the flames – drop him to the floor and if possible quickly wrap him in a heavy fabric, for example, woollen blanket (do not use anything synthetic) – roll the casualty gently along the floor until the flames are extinguished.<sup>1</sup>

### First Aid in the Dental Practice poster

The new First Aid in the Dental Practice poster (Fig. 1) has been designed as an aid memoire for dental staff to provide basic first aid in the dental practice. An A3 sized poster is included as an insert in this issue of the Journal.

## CONCLUSION

First aid can cover a wide range of scenarios ranging from simple reassurance following a minor mishap to dealing with a life-threatening emergency. When providing first aid, it is important to remain calm and focused on the priorities. An overview to the principles of providing first aid in the dental practice has been provided.

1. St John Ambulance. *First Aid Manual*. Tenth edition. Dorling Kindersley: London, 2014.
2. GDC. *Standards for the Dental Team*. GDC: London, 2013.
3. Jevon P. *Medical Emergencies in the Dental Practice*. Second edition. Wiley Blackwell: Oxford, 2013.
4. British Gas. *Emergency numbers*. Available online at <http://www.britishgas.co.uk/emergency-numbers.html>