



FDI POLICY STATEMENT

Basic Life Support (BLS) and Cardiopulmonary Resuscitation (CPR) in the Dental Practice

Adopted by the FDI General Assembly: 27-29 September 2021, Sydney, Australia

1
2

3 **CONTEXT**

4 Effective basic life support (BLS) and cardiopulmonary resuscitation (CPR)
5 techniques can save lives. As leaders of the dental team, dentists must ensure that
6 they and their dental team are appropriately educated, well trained and certified in
7 performing BLS with CPR in accordance with relevant national guidelines. It is
8 recognized as best practice to have the appropriate training and equipment in place
9 to allow the dental team to respond to all medical emergencies (ME) quickly and
10 appropriately in their clinic.

11 **SCOPE**

12 Sudden cardiac arrest (CA) is one of the leading causes of death in most countries.
13 (1) CA can occur everywhere, including in the dental clinic. Due to the possible
14 poor outcomes while treating a CA, time is of the essence. Treatment requires a
15 coordinated effort on the part of the dental team to effectively activate the “Chain of
16 Survival”. (2)

17 CPR training prepares dentists and other members of the dental team to provide
18 rapid response to an unresponsive patient. When a person receives high quality
19 CPR, the blood continues to flow through the heart and keeps the body oxygenated.

20

21 **DEFINITIONS**

22 Basic Life Support (BLS): type of care that first-responders, healthcare providers and
23 public safety professionals provide to anyone experiencing cardiac arrest,
24 respiratory distress or an obstructed airway. It requires knowledge and skills in
25 cardiopulmonary resuscitation (CPR), using an automated external defibrillator
26 (AED) and relieving airway obstructions in patients of any age. (3)

27 Cardiopulmonary Resuscitation (CPR): life-saving procedure utilizing chest
28 compressions and rescue breathing. The latest guidelines put more emphasis on
29 chest compressions. It aims to keep blood and oxygen flowing through the body
30 when a person’s heart and breathing have stopped.

31 Automated External Defibrillator (AED): a device that can detect abnormalities in a
32 person's heart rhythm and, if needed, deliver an electric shock to restore normal
33 rhythm to the heart. This is known as defibrillation. An AED is an essential part of
34 CPR. Using AED properly in conjunction with CPR can significantly increase a
35 person's chance of survival.

36 Cardiac Arrest (CA): occurs when the heart's normal rhythm is disrupted and cannot
37 generate blood flow to the body. When a person suffers from CA, brain damage,
38 organ damage, and death occur in a few minutes.

39

40 **PRINCIPLES**

41 It is imperative for professional healthcare providers to be trained and ready to
42 respond to an ME in the dental clinic. In the absence of local guidelines, dentists
43 and members of the dental team should refer to the American Heart Association, the
44 European Resuscitation Council or those of their regional or national member of the
45 International Liaison Committee on Resuscitation.

46

47 **POLICY**

48 Preparing the dental clinic personnel to respond to a ME:

- 49 • Take complete medical history for each patient and update it regularly.
50 Designate "at-risk" patients.
- 51 • Manage anxiety, fear and pain.
- 52 • If the dental practice has an AED, the whole dental team should have
53 immediate access to it.
- 54 • Dental clinics should be encouraged to have an AED available
- 55 • Practice CPR and responses to MEs. The training sessions should be
56 performed both in the dental operatory and waiting area. The whole team
57 needs to be trained and updated in CPR and ME management. Dental teams
58 that are confident in their BLS/CPR/ME skills will be less likely to hesitate in an
59 emergency.
- 60 • Steps to activate the Chain of Survival include:
 - 61 ○ Survey the scene – make sure the surroundings are safe to help the
62 person in need.
 - 63 ○ Early recognition – check for responsiveness and breathing while
64 ensuring all Infectious Disease precautions are in place.
 - 65 ○ Activation of emergency medical services (EMS) personnel.
 - 66 ○ If the person is not breathing or insufficient breathing (agonal
67 respiration) initiate CPR with 100 to 120 quality chest compressions per
68 minute.
 - 69 ○ Check heart rhythm with an Automated External Defibrillator (AED) if
70 available. The AED may instruct you to deliver an electric shock to the
71 victim's heart before continuing chest compressions.
 - 72 ○ Continue CPR in an adult as C-A-B (chest compressions, airway,
73 breathing) 30:2 - Give 30 chest compressions followed by 2 rescue
74 breaths. In children and infants, new guidelines stress airway
75 management aiming for a rate of 20 to 30 breaths per minute when
76 receiving CPR with advanced airway in place or rescue breathing.

77 ○ Post resuscitation care

78

79

80

81 **KEYWORDS Dental practice, safety, Basic life support**

82 **DISCLAIMER**

83 The information in this Policy Statement was based on the best scientific evidence
84 available at the time. It may be interpreted to reflect prevailing cultural sensitivities
85 and socio-economic constraints.

86

87

88 **REFERENCES**

89 1. Wong CX, Brown A, Lau DH, et al. Epidemiology of Sudden Cardiac Death: Global
90 and Regional Perspectives. *Heart Lung Circ.* 2019 Jan;28(1):6–14. Available from:
91 doi.org/10.1016/j.hlc.2018.08.026

92 2. American Red Cross. Responding to emergencies: comprehensive first
93 aid/CPR/AED. 2017. United States of America: The StayWell Company, LLC; 2017
94 Available from: <http://pchs.psd202.org/documents/mopsal/1539703875.pdf>

95 3. Merchant RM, Topjian AA, Panchal AR, Cheng A, Aziz K, Berg KM, et al. Part 1:
96 Executive Summary: 2020 American Heart Association Guidelines for
97 Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation.*
98 2020 Oct 20;142(16:2):S337–57. Available from:
99 doi.org/10.1161/CIR.0000000000000918

100