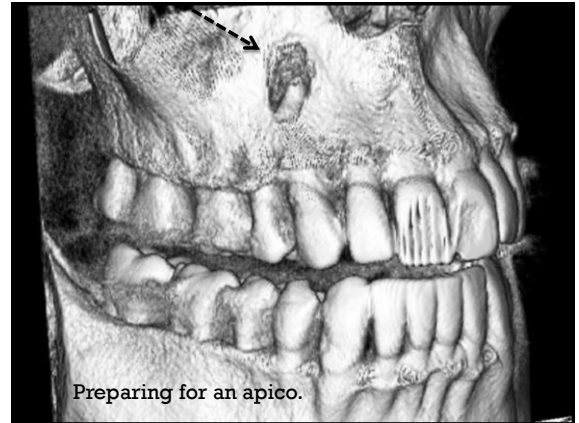
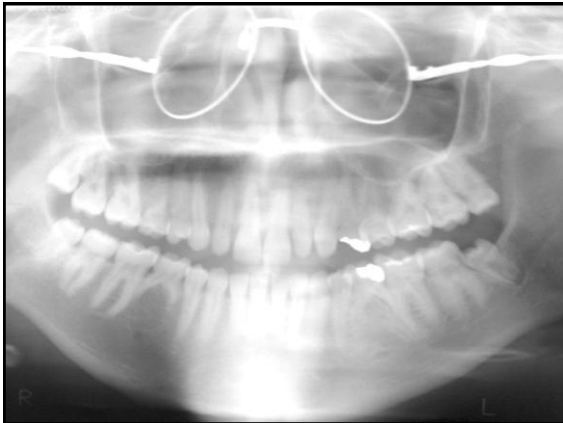


PATIENT EVALUATION

Before
the Surgery!

Start out right.

- Biographical data and patient records.
 - including adequate x-rays



Start out right, cont.

- Biographical data and patient records.
- Medical history
 - Illnesses, hospitalizations, medications, allergies, health-related habits, addictions, last doctor/dentist visit...

Emphysema


Crown preps: #19, #21.

Immediate air emphysema

- Infraorbital area to anterior neck (subcutaneous)
- Also to mediastinum and carotid sheath
- Hard to breath

Treatment

- Steroids, oral antibiotics, pain meds (no decompression)



Stanton, DC & Torres, IF. Subcutaneous cervicofacial emphysema and postoperative anastomosis: A rare complication after a crown preparation. Dent Today. Mar/Apr, 2009.

Start out right, cont.


- Biographical data
 - including adequate x-rays
- Medical history
 - Illnesses, hospitalizations, medications, allergies, health-related habits, addictions, last doctor/dentist visit...
- **ASA classification**

ASA Class. of Physical Status

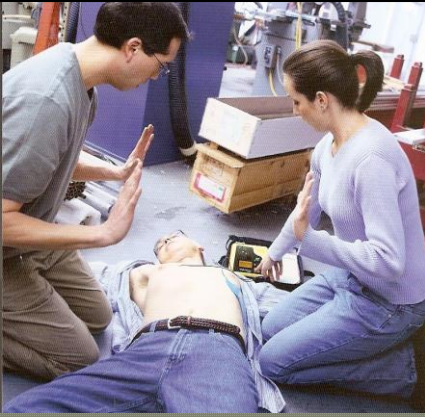
- **VI: Brain-dead, organ donor**
- **V: Moribund, won't survive without an operation**
- **IV: Severe systemic disease and a constant threat to life**
- **III: Severe systemic disease but not incapacitating**

ASA Class. of Physical Status

- **II: Mild systemic disease or significant health risk factors. (Also applies to ASA III.)**
 - **Apply anxiety-reducing measures (nitrous/Halcion) and careful monitoring during TX.**
 - **Medical consultation – anticoagulants, bisphosphonates, not fully recline pt. with congestive heart failure, etc.**
 - **Oxygen**
 - **Adequate emergency kit**
 - **Consider refusing to treat pt. in an ambulatory setting**
 - **Refer to an oral surgeon**

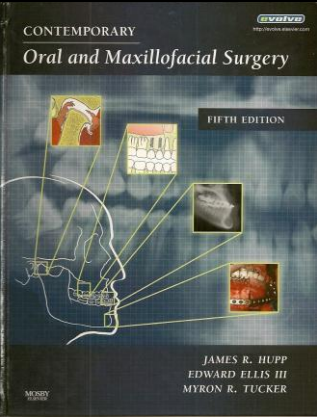


Work on prevention.



CONTEMPORARY
Oral and Maxillofacial Surgery

FIFTH EDITION



JAMES R. HUPP
EDWARD ELLIS III
MYRON R. TUCKER

Page 9



Older, compromised health, on medications...

TABLE 4
Endocarditis Prophylactic Regimens for Dental, Oral, Respiratory Tract and Esophageal Procedures

Situation	Agent	Regimen*
Standard general prophylaxis	Amoxicillin	Adults: 2 g Children: 50 mg per kg Taken orally one hour before the procedure
Patient is unable to take oral medications	Ampicillin	Adults: 2 g Children: 50 mg per kg Given IM or IV within 30 minutes before the procedure
	Cefazolin (Ancef, Kefzol)	Adults: 1 g Children: 25 mg per kg Given IM or IV within 30 minutes before the procedure
Patient is allergic to penicillin	Clinدامycin (Cleocin)	Adults: 600 mg Children: 20 mg per kg Taken orally one hour before the procedure
	Cefadroxil (Duricef) or cephalexin (Biocef, Keflex) †	Adults: 2 g Children: 50 mg per kg Taken orally one hour before the procedure
	Acetaminophen (Zitromax) or clarithromycin (Biaxin)	Adults: 500 mg Children: 15 mg per kg Taken orally one hour before the procedure
Patient is allergic to penicillin and is unable to take oral medication	Clinدامycin	Adults: 600 mg Children: 20 mg per kg Given IV within 30 minutes before the procedure
	Cefazolin (Ancef, Kefzol)	Adults: 1 g Children: 25 mg per kg Given IM or IV within 30 minutes before the procedure

TABLE 2
Dental Procedures and Endocarditis Prophylaxis

Endocarditis prophylaxis recommended*

- Dental extractions
- Periodontal procedures, including surgery, scaling, root planing, probing and recall maintenance
- Dental implant placement and reimplantation of avulsed teeth
- Endodontic (root canal) instrumentation or surgery only beyond the apex
- Subgingival placement of antibiotic fibers or strips
- Initial placement of orthodontic bands (but not brackets)
- Intraoperative local anesthetic injections
- Prophylactic cleaning of teeth or implants, where bleeding is anticipated

Endocarditis prophylaxis not recommended

- Restorative dentistry (operative and prosthodontic), † with or without retraction cord ‡
- Local anesthetic injections (nonintraoperative)
- Intracanal endodontic treatment (post-placement and build-up)
- Placement of rubber dams
- Postoperative suture removal
- Placement of removable prosthodontic or orthodontic appliances
- Oral impressions
- Fluoride treatments
- Oral radiographs
- Orthodontic appliance adjustment
- Shedding of primary teeth

*—Prophylaxis is recommended for patients with high- and moderate-risk cardiac conditions.

†—Procedures include the restoration of decayed teeth (placement of fillings) and the replacement of missing teeth.

‡—Based on clinical judgment, antibiotic use may be indicated for selected situations.

TABLE 1
Cardiac Conditions and Endocarditis Prophylaxis

Endocarditis prophylaxis recommended

- High-risk category
- Prosthetic cardiac valves, including bioprosthetic and homograft valves
- Previous bacterial endocarditis
- Complex cyanotic congenital heart disease (e.g., single ventricle states, transposition of the great arteries, tetralogy of Fallot)
- Surgically constructed systemic-pulmonary shunts or conduits

Moderate-risk category

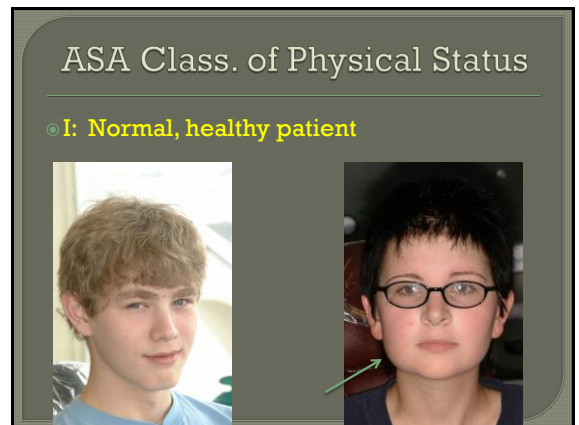
- Congenital cardiac malformations other than those listed in the high-risk and negligible-risk categories
- Acquired valvular dysfunction (e.g., rheumatic heart disease)
- Hypertrophic cardiomyopathy
- Mitral valve prolapse with valvular regurgitation and/or thickened leaflets

Endocarditis prophylaxis not recommended

Negligible-risk category (no greater risk than the general population)

- Isolated secundum atrial septal defect
- Surgical repair of atrial septal defect, ventricular septal defect or patent ductus arteriosus (without residua beyond six months)
- Previous coronary artery bypass graft surgery
- Mitral valve prolapse without valvular regurgitation
- Physiologic, functional or innocent heart murmur
- Previous Kawasaki disease without valvular dysfunction
- Previous rheumatic fever without valvular dysfunction
- Cardiac pacemakers (intravascular and epicardial) and implanted defibrillators

Adapted with permission from Dajani AS, Taubert KA, Wilson W, Bolger AF, Bayer A, Ferrieri P, et al. Prevention of bacterial endocarditis. Recommendations by the American Heart Association. JAMA 1997;277:1794-801.

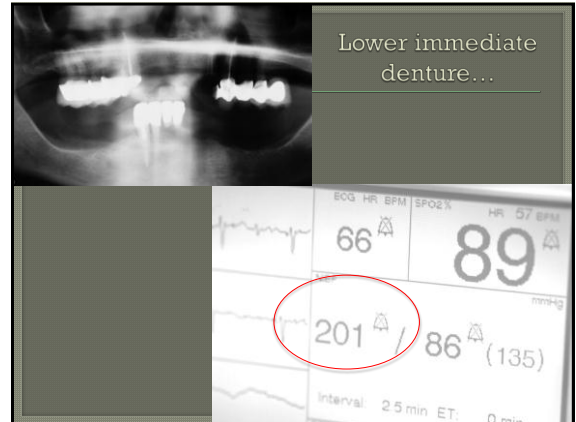


ASA Class. of Physical Status

● I: Normal, healthy patient

Start out right, cont.

- Biographical data
- Medical history
 - Illnesses, hospitalizations, medications, allergies, health-related habits, addictions, last doctor/dentist visit...
 - ASA classification
- **Baseline vital signs**
- Chief complaint
- History of chief complaint



Vital Signs

- **Temperature** (normal 98.6°)
 - Is it over 101°? Patients with severe viral or bacterial infections can have elevated temperatures.
- **Pulse** (normal: 60-80, lower if athletic)
 - Patients with infection can have a pulse rate up to 100 beats/min.
 - If over 100, there may be a severe infection that should be treated aggressively.
- **Respiratory rate** (normal: 14-16/minute)
 - Is infection starting to block the airway?
 - Mild to moderate infection: rate could be over 18

Vital Signs, cont.

- Blood pressure (desirable 90-119 / 60-79)
 - **Systolic 140-159 / diastolic 90-99: Stage 1 hypertension – generally treated.**
 - I treat with caution and refer to physician.
 - Monitor blood pressure during appt.
 - Use anxiety-reduction protocol.
 - Systolic 160-179 / diastolic 100-109: Stage 2
 - Treat after under control.
 - At systolic of 180±, bleeding may be difficult to control
 - Oral surgeons may treat up to 200/110 in ambulatory setting

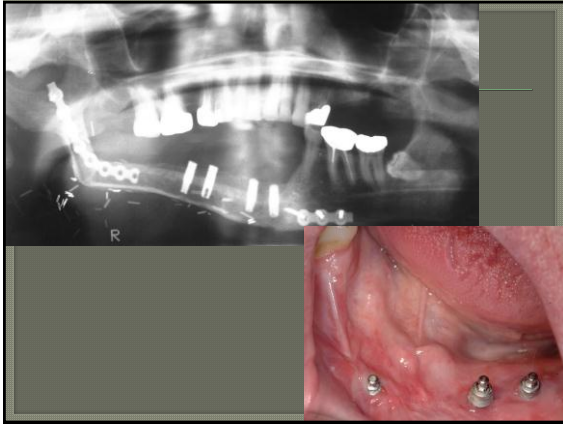
Exam

- **Dental exam**
 - teeth
 - appropriate radiographs
 - prostheses?
- **Head and neck exam**
 - abnormalities
 - possible cancer (1 in 100 lesions)

Exam

- Dental exam
- **Head and neck exam**
 - abnormalities
 - possible cancer (1 in 100 lesions) – biopsy or referral





Medical Issues

- Anxiety
- Hypertension
- Cardiovascular
 - Ischemic heart disease, dysrhythmias, need for SBE prophylaxis, congestive heart failure, etc.
- Pulmonary
 - Asthma, COPD, etc.
- Endocrine
 - Diabetes, adrenal, thyroid problems, etc.

Patients (on Coumadin) deemed appropriate to undergo treatment in a dental office should have an experience that minimizes stress and anxiety.

Premedication with a short-acting benzodiazepine the night before the appointment and one hour before the appointment is appropriate. Supplementation with nitrous oxide–oxygen inhalation also may be helpful but should be discussed with the patient's physician.

Manage Anxiety

- Meds for sleep
- Meds prior to appointment, nitrous (?)
- Morning apt., avoid wait
- Use a patient monitor (BP, pulse, O₂ sat.)
- Verbal reassurance, no surprises
- No distracting talk or noise
- Relaxing music
- Instruments not in sight
- Adequate local anesthetic
- Good post-op instructions
- Effective analgesics
- Follow-up phone call at night

Death Defying Devices: Vital Sign Monitors/Pulse Oximeters

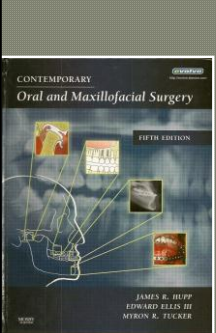
Gordon's Clinical Bottom Lines Early in my career, I doubted the value of these devices for day-to-day general dentistry. However, after many years of practice, I use them routinely for some typical restorative and prosthodontic procedures. Use of these devices is considered by many to be essential for the aging population; those with coronary, pulmonary, and/or other debilitating conditions; most surgical procedures; longer appointments; and during sedation of children. Medical grade oximeter/ blood pressure/ pulse devices are recommended.

Failure to monitor resulted in a dental chair death of a sedated child in California resulting in a criminal homicide charge against the dentist. With longer life spans, our treatment chairs are being filled with medically compromised patients who present with a variety of pulmonary, cardiac, endocrine, and emotional disorders whose conditions can be adversely affected by dental procedures, drugs, stress, and length of appointment. Prudent modern practice dictates that blood pressure and pulse rate be obtained at the initial consultation and the beginning of each dental visit. In some patients, continuous monitoring, including pulse oximetry, is highly advisable. With the current availability of devices that are simply placed by minimally trained personnel, chair time is not altered and the occasional finding of undiagnosed hypertension, cardiac dysrhythmias, and pulmonary disorders is invaluable to the patient and dentist, not to mention the elevated patient's confidence in his dentist and the practice building that this service creates.

Continued on page...

Medical Issues, cont.

- Hepatic
- Hematologic
 - Hereditary, therapeutic...
- Neurologic
 - epilepsy
- Pregnancy
 - Also postpartum...



12 PART 1 • FUNDAMENTALS OF SURGERY

Heart Abnormalities Predisposed Toward Infective Endocarditis

Congestive Heart Failure (Hypertrophic Cardiomyopathy)

13 Management of the Patient with Congestive Heart Failure (Hypertrophic Cardiomyopathy)

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

Congestive heart failure.

Prevent Emergencies
(Get the book – consult references to conform to current guidelines.)

Angina
History of myocardial infarction
Managing the patient with congestive heart failure

BOX 1-10
Management of Patient with History of Angina Pectoris

BOX 1-11
Management of Patient with a History of Myocardial Infarction

BOX 1-12
Management of the Patient with Congestive Heart Failure (Hypertrophic Cardiomyopathy)

BOX 1-13
Management of Asthmatic Patient

BOX 1-14
Management of Patient with Chronic Obstructive Pulmonary Disease

- Management of patient with asthma
- Management of patient with COPD

Also patients:

- With diabetes –
 - insulin and non-insulin dependent
- With hepatic insufficiency
- With seizure disorder
- With renal insufficiency (and/or transplant)
- Who are pregnant
 - acceptable medications
- Who are taking anticoagulants

