

# Adolescent Oral Health Care

## Latest Revision

2020

### Purpose

The American Academy of Pediatric Dentistry (AAPD) recognizes that the adolescent patient has unique needs. This best practice addresses these unique needs and proposes general recommendations for their management. This best practice serves as a summary document; more detailed information regarding these topics is provided in referenced AAPD oral health policies and clinical practice guidelines.

### Methods

This best practice was developed by the Clinical Affairs Committee and adopted in 1986.<sup>1</sup> This document by the Council on Clinical Affairs is a revision of the previous version, last revised in 2015.<sup>2</sup> The update includes an electronic search using the term adolescent combined with: dental, gingivitis, oral piercing, sealants, oral health, caries, tobacco use, dental trauma, orofacial trauma, periodontal, dental esthetics, smokeless tobacco, nutrition, and diet; fields: all; limits: humans, English, clinical trials. The reviewers agreed upon the inclusion of 105 electronic and hand searched articles that met the defined criteria. When data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced researchers and clinicians.

### Background

Adolescence refers to the period of accelerated biological growth, changes, and social role transitions that bridges the gap from childhood to adulthood.<sup>3</sup> The definition of adolescence has changed due to accelerated onset of puberty, delayed timing of role transitions (e.g., completion of education, marriage, parenthood), and the effect of unprecedented social forces such as social media.<sup>3</sup> Rather than age 10-19 years, it has been defined as the period between 10 and up to 24 years.<sup>3</sup> The American Academy of Pediatrics divides adolescence into three age groups including early (ages 11-14), middle (ages 15-17), and late (ages 18-21).<sup>4</sup>

The adolescent patient is recognized as having distinctive needs<sup>5</sup> due to: (1) a potentially high caries rate; (2) a tendency for poor oral hygiene, nutritional habits, and routine oral health care access; (3) increased risk for periodontal disease and traumatic injury; (4) an increased esthetic desire and awareness; (5) increased risk for periodontal disease and traumatic injury; (6) dental phobia; (7) potential use of tobacco, nicotine, alcohol, and other recreational drugs; (8) desire for oral piercings; (9) increased risk of pregnancy or sexually transmitted infections; (10) eating disorders; and (11) unique social and psychological needs.<sup>6-11</sup>

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Treatment of the adolescent patient can be multi-faceted and complex. Accurate, comprehensive, and up-to-date medical, dental, and social histories are necessary for correct diagnosis and effective treatment planning. Familiarity with the patient's medical history is essential for decreasing the risk of aggravating a medical condition while rendering dental care. In some cases, the parent or family members are unaware of certain conditions affecting/facing the adolescent patient. The dental practitioner needs to assure the adolescent patient of trust and confidentiality in certain situations. If the parent is unable to provide adequate details regarding a patient's medical history, consultation with the medical health care provider may be indicated.<sup>12</sup>

There is a growing number of adolescents who experience gender dysphoria and may be considering or undergoing gender identity-related medical and health care services.<sup>13,14</sup> The current prevalence of transgender and non-conforming youth is about two percent.<sup>15</sup> Health history forms should allow youth to provide information on gender, legal and preferred name, and preferred pronouns.<sup>16</sup> Dental office staff should determine preferences, and terminology used should be consistent by all staff. Transgender and gender diverse youth may be at increased risk for eating disorders or substance use disorders.<sup>17,18</sup> Special attention should be given to identifying dental and systemic conditions that may be linked to such disorders.

### Recommendations

This best practice addresses some of the special needs within the adolescent population and proposes general recommendations for their management.

### Caries

Adolescence marks a period of significant caries activity for many individuals. Research suggests that the overall caries rate is declining, yet remains highest during adolescence.<sup>19</sup> Immature permanent tooth enamel,<sup>20</sup> a total increase in susceptible tooth surfaces, and environmental factors such as diet, independence to seek care or avoid it, a low priority for oral

#### ABBREVIATIONS

**AAPD:** American Academy Pediatric Dentistry. **HPV:** Human papilloma virus. **NaF:** Sodium fluoride **OHRQoL:** Oral health-related quality of life. **SHCN:** Special health care needs. **TMJ:** Temporomandibular joint.

hygiene, and additional social factors also may contribute to the upward slope of caries during adolescence.<sup>21-25</sup> Untreated dental caries and missing teeth have been shown to have a negative impact on oral health-related quality of life (OHRQoL), however, restored teeth were not associated with worse OHRQoL.<sup>26</sup> It is important for the dental provider to emphasize the positive effects that fluoridation, professional topical fluoride treatment, routine professional care, patient education, and personal hygiene can have in counteracting the changing pattern of caries in the adolescent population.<sup>6-8</sup>

## Management of caries

### Primary prevention

**Fluoride:** Fluoridation has proven to be safe and highly effective in prevention and control of caries.<sup>27</sup> The adolescent can benefit from fluoride throughout the teenage years and into early adulthood.<sup>8</sup> Although the systemic benefit of fluoride incorporation into developing enamel is not considered necessary past 16 years of age, topical benefits can be obtained through optimally-fluoridated water, professionally-applied and prescribed compounds, and fluoridated dentifrices.<sup>28,29</sup>

**Recommendation:** The adolescent should receive maximum fluoride benefit dependent on risk assessment:<sup>29,30</sup>

- brushing teeth twice a day with a fluoridated dentifrice is recommended to provide continuing topical benefits.<sup>27</sup>
- professionally-applied fluoride treatments should be based on the individual patient's caries-risk assessment, as determined by the patient's dental provider.<sup>27,29</sup>
- home-applied prescription strength topical fluoride products (e.g., 0.4 percent stannous fluoride gel, 0.5 percent fluoride gel or paste, 0.2 percent sodium fluoride [NaF] rinse) may be used when indicated by an individual's caries pattern or caries risk status.<sup>27</sup>
- systemic fluoride intake via optimal fluoridation of drinking water or professionally-prescribed supplements is recommended to 16 years of age. Supplements should be given only after all other sources of fluoride have been evaluated.<sup>27</sup>

**Oral hygiene:** Adolescence can be a time of heightened caries activity and periodontal disease due to an increased intake of cariogenic substances and inattention to oral hygiene procedures.<sup>21</sup> Adolescents become more independent and tooth-brushing may become less of a priority. Adolescent patients need encouragement and motivation to brush with fluoridated toothpaste and floss regularly. Discussions regarding oral hygiene can highlight the benefit of the topical effect of fluoride, removal of plaque from tooth surfaces, and also decrease halitosis and improve esthetics.<sup>8,31</sup>

### Recommendations:

1. Adolescents should be educated and motivated to maintain personal oral hygiene through daily plaque removal, including flossing, with the frequency and technique based on the individual's disease pattern and oral hygiene needs.<sup>31</sup>

2. Professional removal of plaque and calculus is recommended highly for the adolescent, with the frequency of such intervention based on the individual's assessed risk for caries/periodontal disease as determined by the patient's dental provider.<sup>31,32</sup>

**Diet management:** Many adolescents are exposed to and consume high quantities of refined carbohydrates and acid-containing beverages in the form of soda, high-energy sports drinks, and junk food and with introduction of coffee.<sup>8,22,23,25,33</sup> The adolescent can benefit from diet analysis and modification.

**Recommendation:** Diet analysis, along with professionally-determined recommendations for maximal general and dental health, should be part of an adolescent's dental health management.<sup>34</sup>

**Sealants:** Sealant placement is an effective caries-preventive technique that should be considered on an individual basis. Sealants have been recommended for any tooth, primary or permanent, that is judged to be at risk for pit and fissure caries.<sup>7,23,36-38</sup> Caries risk may increase due to changes in patient habits, oral microflora, or physical condition, and unsealed teeth subsequently might benefit from sealant applications.<sup>37</sup>

**Recommendations:** Adolescents at risk for caries should have sealants placed. An individual's caries risk may change over time; periodic reassessment for sealant need is indicated throughout adolescence.<sup>37</sup>

### Secondary prevention

**Professional preventive care:** Professional preventive dental care, on a routine basis, may prevent oral disease or disclose existing disease in its early stages. The adolescent patient whose oral health has not been monitored routinely by a dentist may have advanced caries, periodontal disease, or other oral involvement urgently in need of professional evaluation and extensive treatment.

### Recommendations:

1. Timing of periodic oral examinations should take into consideration the individual's needs and risk indicators to determine the most cost-effective, disease-preventive benefit to the adolescent.<sup>30</sup>
2. Initial and periodic radiographic examination should be part of a clinical evaluation. The type, number, and frequency of radiographs should be determined only after an oral examination and history taking. Previously exposed radiographs should be available, whenever possible, for comparison. Currently accepted recommendations for radiographic exposures (i.e., appropriate films based upon medical history, caries risk, history of periodontal disease, and growth and development assessments) should be followed.<sup>38</sup>

**Restorative dentistry:** There is data to suggest arrest or reversal of noncavitated caries lesions using sealants, five percent NaF varnish, 1.23 percent acidulated phosphate fluoride (APF) gel,

and 5000 parts per million fluoride toothpaste for specific sites in primary and permanent teeth and, in advanced cavitated carious lesions on primary teeth, the use of 38 percent silver diamine fluoride (SDF).<sup>39</sup> In cases where remineralization of non-cavitated, demineralized tooth surfaces is not successful, as demonstrated by progression of carious lesions, dental restorations are necessary. Preservation of tooth structure, esthetics, and each individual patient's needs must be considered when selecting a restorative material.<sup>40</sup> Molars with extensive caries or malformed, hypoplastic or hypomineralized enamel for which traditional amalgam or composite resin restorations are not feasible may require full coverage restorations.<sup>37</sup> Small noncavitated interproximal carious lesions and facial post orthodontic white spot lesions may be treated by resin infiltration.<sup>37,41,42</sup>

*Recommendation:* Each adolescent patient and restoration must be evaluated on an individual basis. Preservation of non-carious tooth structure is desirable. Referral should be made when treatment needs are beyond the treating dentist's scope of practice.<sup>37</sup>

### Periodontal diseases

Adolescence can be a critical period for the human being's periodontal status. Epidemiologic and immunologic data suggest that irreversible tissue damage from periodontal disease begins in late adolescence and early adulthood.<sup>10,43</sup> Gingival disease becomes prevalent in adolescence.<sup>44,45</sup> Dental caries, mouthbreathing, crowding, and eruption of teeth predispose adolescents to gingivitis.<sup>44</sup> Hormonal changes during adolescence are suspected to be a cause of the increased prevalence<sup>45</sup> with studies suggesting that the increase in sex hormones during puberty affects the composition of the subgingival microflora by modifying the gingival inflammatory response and causing exaggerated gingival inflammation, even in the presence of a small amount of plaque.<sup>44</sup> Other studies suggest circulating sex hormones may alter capillary permeability and increase fluid accumulation in the gingival tissues, and this inflammatory gingivitis is believed to be transient as the body accommodates to the ongoing presence of the sex hormones.<sup>46</sup>

Conditions affecting the adolescent include, but are not limited to, dental plaque biofilm gingivitis, non-dental plaque-induced gingival disease, periodontitis (including chronic and aggressive forms), necrotizing periodontitis, periodontitis as a manifestation of systemic disease, periodontal abscess, endodontic-periodontal lesions, mucogingival deformities (i.e., gingival recession), occlusal trauma, and peri-implant diseases.<sup>44,45</sup> The severity of periodontal conditions are assessed by clinical and radiographic examination and can be further characterized by staging and grading the clinical presentation.<sup>47</sup> Early diagnosis of periodontal disease in children is important, especially when there are systemic risk factors (e.g., poorly-controlled diabetes, leukemia, smoking, malnutrition). Refer to the AAPD's *Best Practice on the Classification of Periodontal Diseases in Infants, Children, Adolescents and Individuals with Special Health Care Needs* for further information.<sup>44</sup> Personal

oral hygiene and regular professional intervention can help minimize occurrence of these conditions and prevent irreversible damage.

*Recommendations:* The adolescent will benefit from an individualized preventive dental health program, which includes the following items aimed specifically at periodontal health:

- patient education emphasizing the etiology, characteristics, and prevention of periodontal diseases as well as self-hygiene skills.<sup>45,48,49</sup>
- a personal, age-appropriate oral hygiene program including plaque removal, oral health self-assessment, and diet. Sulcular brushing and flossing should be included in plaque removal, and frequent follow-up to determine adequacy of plaque removal and improvement of gingival health should be considered.<sup>48-50</sup>
- periodontal assessment during initial and routine dental examinations with professional intervention, the frequency of which should be based on individual needs and should include evaluation of personal oral hygiene success, periodontal status, and potential complicating factors such as malocclusion, medical/systemic conditions or habits that predispose to periodontal disease. Comprehensive periodontal examination includes an assessment of gingival topography; probing depth; recession; attachment levels; bleeding on probing; suppuration; furcation; presence and degree of plaque, calculus, and gingival inflammation; mobility of teeth; periodontal charting; and radiographic periodontal diagnosis should be a consideration when caring for the adolescent. The extent and nature of the periodontal evaluation should be determined professionally on an individual basis. Those patients with progressive periodontal disease should be referred when the treatment needs are beyond the treating dentist's scope of practice.<sup>44,45,48,49</sup>
- appropriate evaluation for procedures to facilitate orthodontic treatment including, but not limited to, tooth exposure, frenectomy, fiberotomy, gingival augmentation, and implant placement.<sup>45</sup>

### Occlusal considerations

Malocclusion can be a significant treatment need in the adolescent population as both environmental and/or genetic factors come into play. Although the genetic basis of much malocclusion makes it unpreventable, numerous methods exist to treat the occlusal disharmonies, temporomandibular joint dysfunction, periodontal disease, and disfiguration which may be associated with malocclusion. Within the area of occlusal problems are several tooth/jaw-related discrepancies that can affect the adolescent. Third molar malposition and temporomandibular disorders require special attention to avoid long-term problems. Congenitally missing teeth present complex problems for the adolescent and often require combined orthodontic, restorative, and prosthodontic care for satisfactory resolution.

**Malocclusion:** Any tooth/jaw positional problems that present significant esthetic, functional, physiologic, or emotional dysfunction are potential difficulties for the adolescent. These can include single or multiple tooth malpositions, tooth/jaw size discrepancies, and craniofacial disfigurements. Malocclusion can affect the oral health quality of life for adolescents. Adolescents with Class II and III malocclusions or anterior overjet greater than six millimeters reported a significant impact on their oral health related quality of life.<sup>51-55</sup>

*Recommendations:*

1. Malposition of teeth, malrelationship of teeth to jaws, tooth/jaw size discrepancy, skeletal malrelationship, or craniofacial malformations or disfigurement that presents functional, esthetic, physiologic, or emotional problems for the adolescent should be referred for evaluation when the treatment needs are beyond the treating dentist's scope of practice.
2. Treatment of malocclusion by a dentist should be based on professional diagnosis, available treatment options, patient motivation and readiness, and other factors to maximize progress.<sup>56</sup> Optimal oral hygiene and routine dental examinations are important to prevent demineralization during orthodontic treatment.

**Third molars:** Third molars can present acute and chronic problems for the adolescent. Impaction or malposition leading to such problems as pericoronitis, caries, cysts, or periodontal problems merits evaluation for removal.<sup>57-59</sup> The role of the third molar as a functional tooth also should be considered.

*Recommendations:* Evaluation of third molars, including radiographic diagnostic aids, should be an integral part of the dental examination of the adolescent.<sup>31</sup> Refer to the AAPD's *Best Practices on Management Considerations for Pediatric Oral Surgery and Oral Pathology*.<sup>57</sup> Referral should be made if treatment needs are beyond the treating dentist's scope of practice.

**Temporomandibular joint (TMJ) problems:** Disorders of the TMJ can occur at any age, but symptoms appear more prevalent in adolescence.<sup>60,61</sup> A recent study reported that adolescent females had more TMJ disorders than males.<sup>52</sup>

*Recommendations:* Evaluation of the TMJ and related structures should be a part of the examination of the adolescent. An adolescent comprehensive dental examination should incorporate a screening evaluation of the TMJ and surrounding area to include a screening history for symptoms, clinical examination and evaluation of jaw movements and, if indicated, radiographic imaging. Referral should be made when the diagnostic and/or treatment needs are beyond the treating dentist's scope of practice.<sup>57,60,61</sup>

**Congenitally missing teeth:** The impact of a congenitally missing permanent tooth on the developing dentition can be significant.<sup>62</sup> When treating adolescent patients who are congenitally missing teeth, many factors (e.g., esthetics; patient

age; growth potential; orthodontic, periodontal, and oral surgical needs) must be taken into consideration.<sup>56,62-64</sup>

*Recommendations:* Evaluation for patients who are congenitally missing permanent teeth should include both immediate and long-term management. Referral should be made when the treatment needs are beyond the treating dentist's scope of practice. Due to the complexity of the growing adolescent, a team approach may be indicated.<sup>62,65</sup>

**Ectopic eruption:** Abnormal eruption patterns of the adolescent's permanent teeth can contribute to root resorption, bone loss, gingival defects, space loss, and esthetic concerns. Early diagnosis and treatment of ectopically erupting teeth can result in a healthier and more esthetic dentition. Prevention and treatment may include extraction of deciduous teeth, surgical intervention, and/or endodontic, orthodontic, periodontal, and/or restorative care.<sup>66-68</sup>

*Recommendations:* The dentist should be proactive in diagnosing and treating ectopic eruption and impacted teeth in the young adolescent.<sup>57</sup> Early diagnosis, including appropriate radiographic examination,<sup>38</sup> is important. Referral should be made when the treatment needs are beyond the treating dentist's scope of practice.<sup>65</sup>

### Traumatic injuries

Epidemiological studies have shown up to 25 percent of adolescents and adults experienced dental trauma, with most of these injuries involving maxillary central incisors from falls, collisions, playing sports, accidents, violence, or recreational activities.<sup>69-71</sup> The prevalence of injuries reported from studies around the world shows a wide range from six percent to 59 percent, depending on the country and type of injury.<sup>70</sup> Dental traumatic injuries are associated mostly commonly with falls or collisions, and males are more frequently injured across all age groups.<sup>69</sup> All sporting activities have an associated risk of orofacial injuries due to falls, collisions, and contact with hard surfaces.<sup>72</sup> The administrators of youth, high school, and college organized sports have demonstrated that dental and facial injuries can be reduced significantly by introducing mandatory protective equipment such as face guards and mouthguards.<sup>73</sup> Additionally, youth participating in leisure activities such as skateboarding, roller skating, trampolining, and bicycling also benefit from appropriate use of mouthguards and protective equipment.<sup>8,74,75</sup> Long-term sequelae of traumatic injuries can affect well-being, speech, need for complex care, and oral health-related quality of life.<sup>8</sup>

*Recommendations:* Timely management of traumatic dental injuries is very important. There is a need for greater awareness of and education regarding the importance of timely management of dental trauma.<sup>69</sup> Dentists should introduce a comprehensive trauma prevention program to help reduce the incidence of traumatic injury to the adolescent dentition. This prevention plan should consider assessment of the patient's sport or activity, including level and frequency of activity.<sup>73</sup>

Once this information is acquired, recommendation and fabrication of an age-appropriate, sport-specific, and properly-fitted mouthguard/faceguard can be initiated.<sup>73</sup> Players should be warned about altering the protective equipment that will disrupt the fit of the appliance. In addition, players and parents must be informed that injury may occur even with properly-fitted protective equipment.<sup>73</sup>

#### **Additional considerations in oral/health care of the adolescent**

The adolescent can present particular psychosocial characteristics that impact the health status of the oral cavity, care seeking, and compliance. The self-concept development process, emergence of independence, and the influence of peers are just a few of the psychodynamic factors impacting dental health during this period.<sup>6,9,28</sup>

**Esthetic concerns:** Desire to improve esthetics of the dentition by tooth whitening and removal of stained areas or defects can be a concern of the adolescent. Indications for the appropriate use of tooth-whitening methods and products are dependent upon correct diagnosis and consideration of eruption pattern of the permanent dentition.<sup>76</sup> The dentist must determine the appropriate mode of treatment. Use of bleaching agents, microabrasion, placement of an esthetic restoration, or a combination of treatments all can be considered.<sup>77,78</sup>

**Recommendations:** For the adolescent patient, judicious use of bleaching can be considered part of a comprehensive, sequenced treatment plan that takes into consideration the patient's dental developmental stage, oral hygiene, and caries status. A dentist should monitor the bleaching process, ensuring the least invasive, most effective treatment method. Dental professionals also should consider possible side effects when contemplating dental bleaching for adolescent patients.<sup>78-80</sup>

**Tobacco, nicotine, alcohol, and recreational drug use:** Significant oral, dental, and systemic health consequences and death are associated with all current forms of tobacco use. These include the use of products such as cigars, cigarettes, snuff, hookahs, smokeless tobacco, pipes, bidis, kreteks, dissolvable tobacco, and electronic cigarettes.<sup>81</sup> Smoking and smokeless tobacco use are initiated and established primarily during adolescence.<sup>82-85</sup> There is increased risk in oral cancer from chewing tobacco and an increased risk of lung and pancreatic cancers, cardiovascular disease, stroke, and risk-taking behaviors with use of nicotine, e-cigarettes, vaping, alcohol, and recreational drugs.<sup>86</sup> In addition, use of these substances can have effects such as halitosis, extrinsic staining, and negative outcomes in sports performance.<sup>8</sup>

**Recommendations:** The oral and systemic consequences of all current forms of tobacco use should be part of each patient's oral health education.<sup>87-89</sup> For those adolescent patients who use tobacco products, the practitioner should provide or refer the patient to appropriate educational and counseling services.<sup>90</sup> Questions regarding tobacco use should be added to the adolescent dental record.<sup>91</sup> When associated pathology is

present, referral should be made if the treatment needs are beyond the treating dentist's scope of practice. This is further discussed in the AAPD's policies on tobacco use, nicotine delivery systems, and substance abuse.<sup>87-89</sup>

**Oral piercing:** Intraoral and perioral piercing can have local and systemic adverse effects.<sup>92,93</sup> Risks include, but are not limited to, pain, bleeding, swelling, hematoma, delayed healing, nerve damage, abscess, blood-borne infections (hepatitis B or C, human immunodeficiency virus [HIV], Epstein-Barr virus [EBV], tetanus, tuberculosis), endocarditis, metal hypersensitivity, choking from loose jewelry, enamel fractures, gingival trauma, periodontal recession, speech impediment, and swallowing difficulties or aspiration.<sup>8,93-95</sup>

**Recommendations:** Piercing and the use of jewelry on intraoral and perioral tissues should be discouraged due to potential for pathologic conditions and sequelae.<sup>93</sup> Prevention of complications begins with oral health education regarding these adverse effects.<sup>95</sup>

**Pregnancy:** The pregnant adolescent can be affected by physiological changes to the oral cavity (e.g., gingivitis, pregnancy-associated dry mouth, pyogenic granuloma).<sup>96</sup>

**Recommendations:** Proper screening for pregnancy is part of care of the adolescent female patient. Comprehensive care during pregnancy should involve assessment of caries and periodontal disease risks along with discussion of the importance of a healthy diet, fluoride, and oral hygiene.<sup>96</sup>

**Sexually-transmitted infections:** There is a growing concern and increase in the prevalence of sexually transmitted disease in adolescents, specifically in the ages of 15-19 years.<sup>11</sup> Screening and examination for oral signs of sexually transmitted infections and appropriate management or referral by the provider are important. Because human papilloma virus (HPV) has shown a relationship with oral and oropharyngeal cancers, dentists are in a unique position to discuss the HPV vaccination with patients and their parents.<sup>97</sup>

**Recommendations:** Screening and examination for oral signs of sexually transmitted diseases should be part of comprehensive care delivered to the adolescent patient. The examination should include identifying oral manifestations of sexually-transmitted diseases as well as education on the risk of transmission during unprotected oral sex and adoption of barrier techniques (e.g., condoms, dental dams) for prevention; referral for counseling and treatment is recommended when indicated.<sup>11</sup> Patients also should be educated on HPV and available vaccination to prevent risk of infection.<sup>97</sup>

**Psychosocial and other considerations:** Behavioral considerations when treating an adolescent may include anxiety, phobia, and intellectual dysfunction.<sup>21</sup> Some psychosocial considerations may result in oral problems (e.g., perimyolysis/severe enamel erosion in patients with bulimia).<sup>98</sup>

The impact of psychosocial factors relating to oral health must include consideration of the following:

- changes in dietary habits (e.g., fads, freedom to snack, increased energy needs, access to carbohydrates).
- use of tobacco, alcohol, and drugs.
- risk-taking or risk-seeking behavior.
- motivation for maintenance of good oral hygiene.
- adolescent as responsible for care.
- lack of knowledge about periodontal disease.

Physiologic changes also can contribute to significant oral concerns in the adolescent. These changes include: (1) loss of remaining primary teeth; (2) eruption of remaining permanent teeth; (3) gingival maturity; (4) facial growth; and (5) hormonal changes.

Although new studies show that neurologic maturation continues into the third decade of life, seeking assent from adolescents for intervention can foster the moral growth and development of autonomy in young patients.<sup>99,100</sup> Refer to AAPD's *Best Practice on Informed Consent* for further information.<sup>101</sup>

*Recommendations:*

1. An adolescent's oral health care should be provided by a dentist who has appropriate training in managing the patient's specific needs. Referral should be made when the treatment needs are beyond the treating dentist's scope of practice. This may include both dental and non-dental problems.<sup>102</sup> Consultation with non-dental professionals or a team approach may be indicated.
2. Supplemental medical history topics regarding questions on pregnancy, alcohol and drug use, oral piercings, tobacco use, sexual activity, and eating disorders should be included in the adolescent dental record.<sup>91</sup>
3. Attention should be given to the particular psychosocial aspects of adolescent dental care. Other issues such as assent, confidentiality, and compliance should be addressed in the care of these patients.<sup>101,103</sup>
4. A complete oral health care program for the adolescent requires an educational component that addresses the particular concerns and needs of the adolescent patient and focuses on:
  - a. specific behaviorally- and physiologically-induced oral manifestations in this age group;<sup>31</sup>
  - b. shared responsibility for care and health by the adolescent, parent, and provider;<sup>31</sup> and
  - c. consequences of adolescent behavior on oral health.<sup>8</sup>

*Transitioning to adult care:* As adolescent patients approach the age of majority, it is important to educate the patient and parent on the value of transitioning to a dentist who is knowledgeable in adult oral health care. The adult's oral health needs may go beyond the scope of the pediatric dentist's training. The transitioning adolescent should continue professional oral health care in an environment sensitive to his/

her individual needs. Many adolescent patients independently will choose the time to seek care from a general dentist and may elect to seek treatment from a parent's primary care provider. In some instances, however, the treating pediatric dentist will be required to suggest transfer to adult care.

Pediatric dentists are concerned about decreased access to oral health care for individuals with special health care needs (SHCN)<sup>104</sup> as they reach the age of majority. Pediatric hospitals, by imposing age restrictions, can create a barrier to care for these patients. Transitioning to a dentist who is knowledgeable and comfortable with adult oral health care needs is important and, in some instances, difficult due to a lack of trained providers willing to accept this responsibility. Successful transitioning from pediatric to adult special needs dentistry involves the patient and his caregiver(s), adequate preparation, and understanding of the complex situations relating to care.<sup>105</sup>

*Recommendations:* At a time agreed upon by the patient, parent, and pediatric dentist, the patient should be transitioned to a dentist knowledgeable and comfortable with managing that patient's specific oral care needs. For the patient with SHCN, in cases where it is not possible or desired to transition to another practitioner, the dental home can remain with the pediatric dentist and appropriate referrals for specialized dental care should be recommended when needed.<sup>103</sup>

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