

The IHS Dental Explorer

A publication of the IHS Division of Oral Health

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Division of Oral Health announces new Perio Initiative

The IHS Division of Oral Health announces the creation of a new national initiative, the ***IHS Periodontal Treatment Initiative***. With the continuation of the IHS Early Childhood Caries (ECC) Collaborative for another two years, the new perio initiative is the second nationwide clinical initiative for IHS, tribal, and urban dental programs.

Name: The IHS Periodontal Treatment Initiative

Overall Goal: Increase focus on the diagnosis and treatment of periodontal diseases in IHS, tribal, and urban dental programs.

Theme: *Overall Health begins with Periodontal Health*

Program Components:

- ◆ Screening Guide: CPI Guide (see pages 2-3) designed to remind providers of how to use the Community Periodontal Index (CPI) to screen patients for periodontal disease.
- ◆ Treatment Guide: Periodontal Treatment Flow Sheet (to be developed later) will serve as a guide for clinicians in treating many patients with periodontal disease.
- ◆ Overview of Detection, Diagnosis and Treatment Planning—Power Point presentation providing a broad overview and a common sense, public health approach to managing periodontal disease.

- ◆ Oral-Systemic Link—another Power Point presentation for all dental staff showing the links between oral conditions such as periodontal disease and systemic health problems [supports the initiative theme of “Overall Health begins with Periodontal Health”].
- ◆ Periodontal Patient Management Overview—a more detailed Power Point presentation for providers in managing periodontal disease patients.

Resources: Information on the IHS Periodontal Disease Initiative is provided in this newsletter, but more details, including the screening guide, treatment protocol, and presentations are available online on the IHS Dental Portal at www.ihs.gov/doh/hpdp (click on the periodontal disease tab under the “resources” section).

Periodontal disease is a major cause of tooth loss in adults and has an effect on nutrition and overall health. According to 2010 data from the National Health and Nutrition Examination Survey, almost half of adults over the age of 30 have periodontal disease, and the prevalence may even be higher in American Indians and Alaska Natives. This initiative is important and timely in helping address this disease, and I hope that you will embrace the new IHS DOH initiative.

Timothy L. Lozon, DDS
Director, IHS Division of Oral Health

Overall Health begins with Periodontal Health!

Use of the Community Periodontal Index (CPI) in IHS, Tribal, and Urban Dental Programs

History

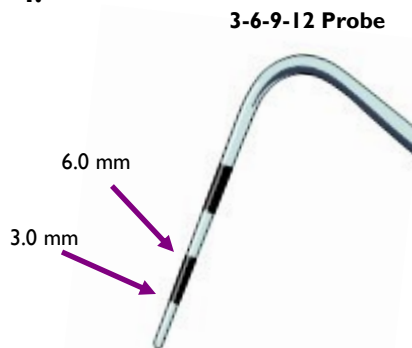
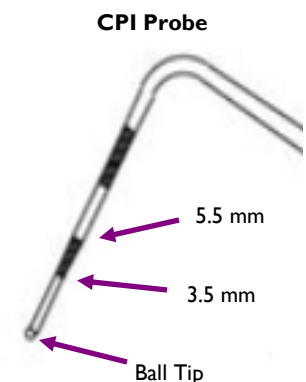
The Community Periodontal Index (CPI, formerly called the Community Periodontal Index of Treatment Needs or CPITN) was created in 1978 by the World Health Organization (WHO) to provide a global standard for screening periodontal disease in populations. In 1992, the Periodontal Screening and Recording (PSR) index was created by the American Dental Association in collaboration with the American Academy of Periodontology. However, these two indices are essentially the same and form the cornerstone of periodontal screening prior to diagnosis and treatment.

What is meant by an index?

An index is a screening only. It does not replace the need for a comprehensive periodontal examination when indicated. A periodontal examination should be completed on any patient where periodontal therapy such as scaling and root planning (SRP) is planned.

What kind of probe should I use?

The CPI probe has a ball tip and a color coded segment between 3.5mm and 5.5mm. The small spherical tip aids in the detection of calculus and limits penetration through the epithelium at the bottom of the sulcus. As described on the next page, **if the first black band is partially visible, the sextant is scored a “3,” and if the first black band is not visible, the sextant is scored a “4.”**



If a CPI probe is not used, then any probe may be used, realizing that you will need to estimate probing depths of 3.5 and 5.5 mm.. For example, **with the 3-6-9-12 probe if the first black band is partially visible but more than 1/2 mm into the sulcus, the sextant is scored a “3,” and if the first black band is not visible or is only barely visible (just a 1/2 mm), the sextant is scored a “4.”** The diagrams on the next page are for the CPI probe, but are very similar to the 3-6-9-12 probe.

What are the IHS standards regarding the CPI?

- ◆ All patients over the age of 15 with teeth should receive a CPI as part of their dental examination; and
- ◆ For patients who have at least two (2) sextants with a CPI score of 3 or at least one (1) sextant with a CPI score of 4, a full periodontal examination is recommended.

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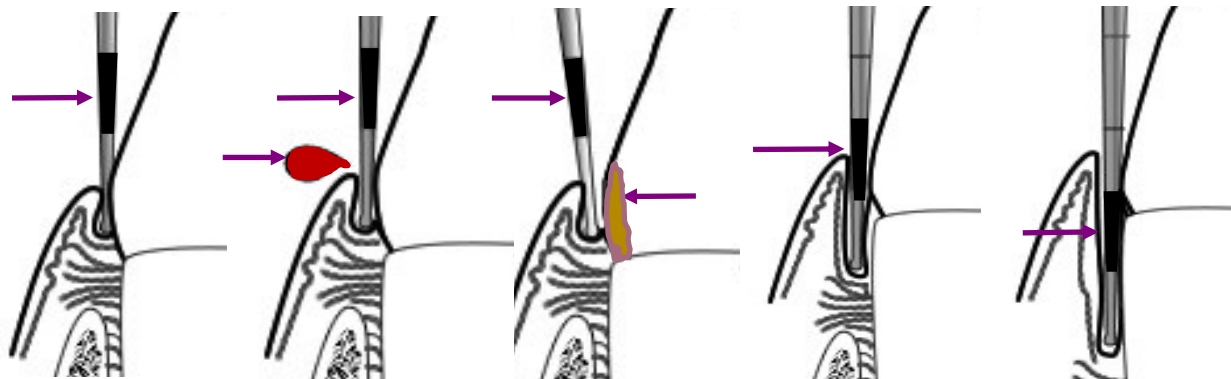
Overall Health begins with Periodontal Health!

How do I score using the CPI?

Using a graduated probe the CPI classifies the sextant using only the “worst” finding (or highest score) observed in the sextant. Thus, only one score is recorded for every sextant examined. Each sextant of the mouth is given an index score. The sextants are 2nd molar to 1st bicuspid and cuspid to cuspid. Pocket depth is measured from the gingival crest and not the cemento-enamel junction, even when gingival recession has occurred.

2-5	6-11	12-15
31-28	27-22	21-18

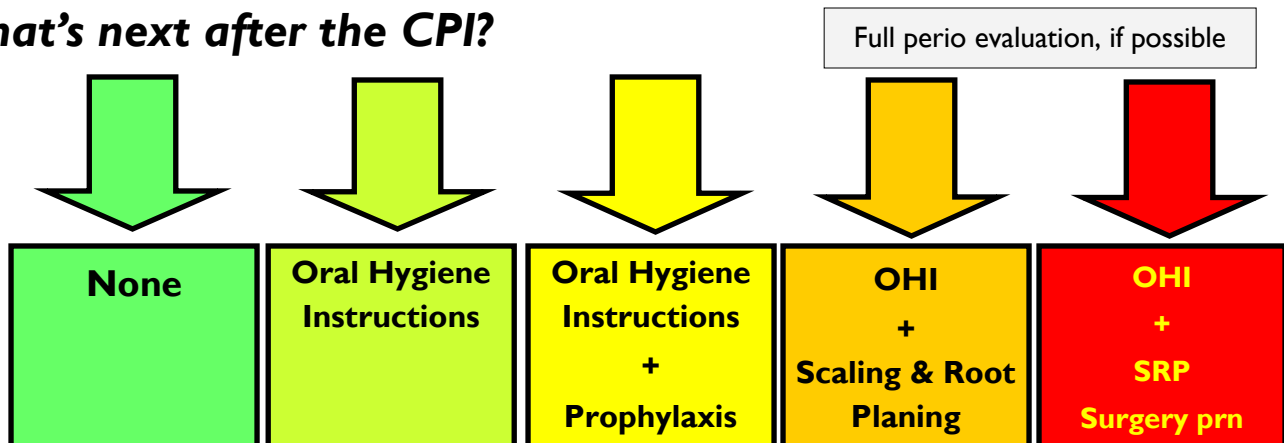
A sextant must have at least 2 teeth to be scored. If only one tooth remains in the sextant, the findings for that tooth should be included with the score for the nearest adjacent sextant. For sextants with less than two teeth, use code “X” for that sextant; otherwise, code as indicated below. A general rule for scoring is: if doubt exists, assign the lesser score. When heavy extrinsic stain is present in the absence of calculus or pockets, the sextant may be scored as 2 if dental services are needed to remove the stains.



<p>Code 0</p> <p>No pockets ≥ 3.5mm (black band fully visible)</p>	<p>Code 1</p> <p>No pockets ≥ 3.5mm Bleeding on probing (black band fully visible)</p>	<p>Code 2</p> <p>No pockets ≥ 3.5mm Calculus present (black band fully visible)</p>	<p>Code 3</p> <p>Pocket ≥ 3.5mm but < 5.5 mm (black band partially visible)</p>	<p>Code 4</p> <p>Pocket ≥ 5.5mm (black band not visible)</p>
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A limitation of the Community Periodontal Index is that a score of 3 or 4 denotes probing depth present, but gives no information on the presence or absence of bleeding on probing or calculus. Thus, someone on recall with 4mm or 5mm probe depths in all sextants would still be scored with 3's though no calculus or bleeding may be present. Also, the index does not assess bone levels and recession, so a patient with a history of severe periodontitis and advanced recession could have all sextants with scores of 0, 1, and 2's. Examiners should also bear in mind that some sextants which are scored as a 3 or 4 upon initial examination may be found to have a CPI score of 0 or 1 after prophylaxis/deep scaling is completed.

What's next after the CPI?



Overall Health begins with Periodontal Health!

Impact of diabetes on periodontal status

Diabetes is a significant risk factor for periodontal disease. The age of onset of type 2 diabetes often occurs in the third and fourth decades of life. Therefore, diabetes becomes an important oral health issue during adult life. The presence of periodontal disease, like other infections, can contribute to higher blood sugar levels and poorer blood sugar control in patients with diabetes. The risk of periodontal disease also increases with both the severity (poor blood sugar control) and the length of time or duration since the diagnosis of diabetes. [1999 IHS Oral Health Survey]



Epidemiologic studies in Pima Indians (Shlossman et al) reveal some startling statistics: (1) patients with diabetes had three times greater attachment loss than patients without diabetes; (2) destructive periodontitis occurred much earlier in life in patients with diabetes; (3) patients with poorly controlled diabetes have 11 times the risk of those with controlled diabetes in progressive bone loss; and finally (4) patients with diabetes were 15 times more likely to lose all of their teeth compared to those without diabetes.

The success of periodontal therapy is higher in those patients with well-controlled diabetes, making diabetes management an important aspect of periodontal disease management.

Diabetes Facts

(from IHS Division of Diabetes Treatment and Prevention)

2.3 times higher	Likelihood of American Indian and Alaska Native adults to have diagnosed diabetes compared with non-Hispanic whites (16.1% vs. 7.1%; 2009)
9 times higher	Likelihood of American Indian and Alaska Native youth aged 10-19 to have diagnosed type 2 diabetes compared to non-Hispanic whites (1.74 per 1000 vs. 0.19 per 1000; 2001)
110%	Percent increase in diagnosed diabetes from 1990 to 2009 in American Indian and Alaska Native youth aged 15-19 years (3.24 vs. 6.81 per 1000)
1.6 times higher	Death rate due to diabetes for American Indians and Alaska Natives compared with the general U.S. population (34.5 vs. 21.8 per 100,000; 2008)

Overall Health begins with Periodontal Health!

Impact of tobacco use on periodontal status

Tobacco use, especially cigarette smoking, is another known risk factor for periodontal disease. As with diabetes, periodontal disease risk increases with the length of time and the amount an individual has smoked or used smokeless tobacco. [1999 IHS Oral Health Survey]

But tobacco use isn't just a risk factor for *developing* periodontal disease; it is also an independent risk factor for the *extent and severity* of periodontal disease and, more importantly, for the *success of periodontal disease treatment* [Borojevic, Smoking and Periodontal Disease].

Smoking Facts

(from the NW Portland Area Indian Health Board)

33% of adult American Indians and Alaska Natives are smokers—this is the highest rate of commercial tobacco use among every age, ethnic, and gender category in the U.S.

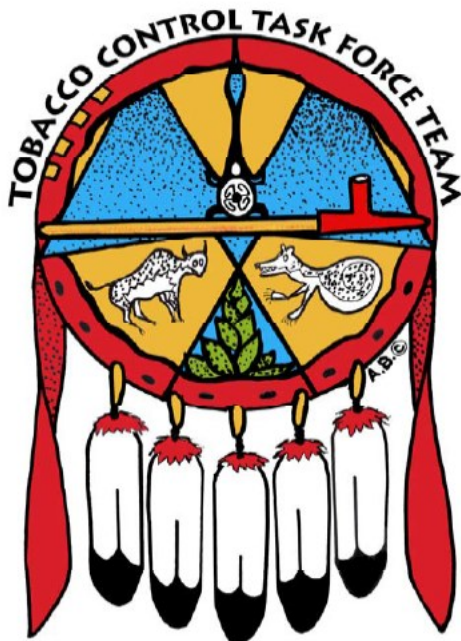
Cardiovascular disease is the leading cause of death among American Indians. Lung cancer is the leading cause of cancer death among American Indians. Tobacco use is a major risk factor for both diseases.

The prevalence of smokeless tobacco use is higher among American Indians and Alaska Natives than any other ethnic group in the U.S.

Current smoking among high school students at BIA high schools is 56%, more than double the smoking prevalence rate among all U.S. high school students.

Smoking especially weakens the immune response to disease, but its effect on periodontal disease and therapy is much more complex than that. The Centers for Disease Control summarizes the effects of smoking as follows: (1) the risk of developing periodontal disease for smokers is twice that of nonsmokers; (2) there is a dose-response relationship, meaning that

the more cigarettes a patient smokes, the greater their risk for developing periodontal disease; (3) the longer a patient smokes, the greater the risk of developing periodontal disease; (4) periodontal therapy is not as effective for smokers; and (5) tobacco use in any form—cigarettes, pipes, and smokeless (spit) tobacco—raises a patient's risk of developing periodontal disease.



Consequently, just like diabetes, it is important for dental providers to address smoking/tobacco use with their patient before, during, and after periodontal therapy. For more information on these topics and more related to periodontal disease, visit our website at www.ihs.gov/doh/—click on the “Perio Initiative” tab after logging in to the Portal.

Special Patient Handout—Print or tear out this page and place it in your waiting room, in medical exam rooms, or hand it to patients.

Take the Gum Disease Quiz!

- ◆ Do your gums bleed, especially when you brush or floss your teeth?
- ◆ Are any of your teeth loose?
- ◆ Do you have bad breath, or been told you have bad breath?
- ◆ Do you have a bad taste in your mouth that won't go away?
- ◆ Do you have pain or discomfort when chewing?
- ◆ Do you smoke?
- ◆ Do you have diabetes?
- ◆ Do your gums look like any of the following pictures?



If you answered yes to ANY of these questions, you could have gum disease. Please call your dentist or clinic to schedule an appointment today!

Overall Health begins with Periodontal Health!