

# oral complaints and systemic health

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**T**HERE IS INCREASING EVIDENCE to indicate there are important relationships between the oral cavity and the rest of the body. In other words, metabolic changes in the total organism are reflected in the oral cavity. Conversely, alterations in the mouth contribute to pathosis elsewhere.

In its simplest form, two characteristics of oral health and disease are rapidly emerging.

**FIRST**, the evidence suggests that the two most common oral problems, dental caries and the periodontal diseases, are the result of multiple factors stemming from the local environ-

ment and conditioned by host resistance and susceptibility.

**SECOND**, the facts seem clear that oral health and disease occur in a spectrum ranging from optimal health to obvious sickness with an infinite number of gradations between.

Purpose of the following report is to determine whether there are significant relationships between common oral complaints and general health as measured by a simple and self-administered questionnaire. (Its use was discussed in September DENTAL SURVEY; a future report will discuss gingival bleeding and general health.

## METHOD OF INVESTIGATION

One hundred routine dental patients in the Veterans Administration Hospital were administered the Oral Health Index Questionnaire (abbreviated OHI). This form consists of 270 questions. Provided in the table on page 45 is a listing of the general types of questions and the number in each category.

The first 50 questions relate to the immediate oral health status. The commonly occurring chief complaints encountered by the dentist appear at the beginning.

Thus, the very first question deals with the possibility of a toothache. The number of affirmative replies in this group can be totaled and expressed as a present oral index (abbreviated PRESOREX). There then follow questions which provide the dental practitioner with information concerning the dietary, emotional, and general health status. Like the PRESOREX, these can be expressed as indices. (The number of questions, the designations, and the abbreviations are summarized in the table.)

These four indices may then be combined to determine an over-all present health score (PRESEX).

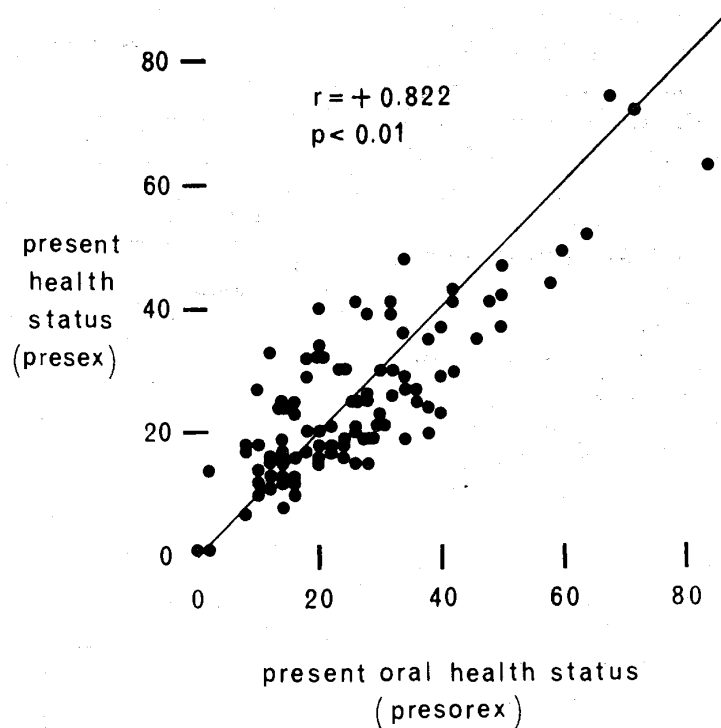


FIGURE 1. The relationship of present oral complaints [PRESOREX] and present health status [PRESEX].

Similarly, there are questions concerned with past oral health (PASOREX) and past general health (PASGENEX). These together make up a composite past health index (PASEX).

The last 20 questions deal with family history. From these a family health index (FAMEX) can be established.

Finally, from all of these, a total health score, referred to as TOTEX, may be obtained.

Thus, the total number of affirmative answers in the various sections of the questionnaire makes it possible to compare the oral complaints and systemic state.

## RESULTS

Figure 1 pictorially portrays the relationship of oral complaints to the composite present health status. Specifically, described on the hori-

zontal axis are the present oral index scores (PRESOREX) for the one hundred male VA patients. Listed on the vertical axis are the scores (PRESEX) for the over-all present health state.

It is abundantly clear that the study subjects having the greatest number of oral symptoms and signs (on the horizontal scale) also report the greatest number of complaints in general (on the vertical scale). The statistical significance of this positive correlation is underscored by a correlation coefficient of +0.822, which is significant at the 1% confidence level ( $P < 0.01$ ).

The present oral status (PRESOREX) has been studied in relation to the other indices mentioned — including dietary habits, emotional state, present general health, past oral status, past general health, and total health picture. It will be observed in Figure 2 that there are statistically significant, though admittedly varied, correlations between all of these parameters.

In other words, a patient with many oral complaints is likely to report many emotional and general complaints. This same individual is apt to report a high degree of family disease. Finally, he frequently reports poor dietary habits.

#### DISTRIBUTION OF 270 QUESTIONS FOR ORAL HEALTH INDEX

Categories	Q.	Designation	Abbreviation
Present oral symptoms and signs	50	Present oral health index	PRESOREX
Present dietary habits	25	Present dietary index	PRESDIEX
Present emotional state	25	Present emotional index	PRESEMEX
Present general health	50	Present general health index	PRESGENEX
Past oral symptoms and signs	50	Past oral health index	PASOREX
Past general health	50	Past general health index	PASGENEX
Family history	20	Family health index	FAMEX

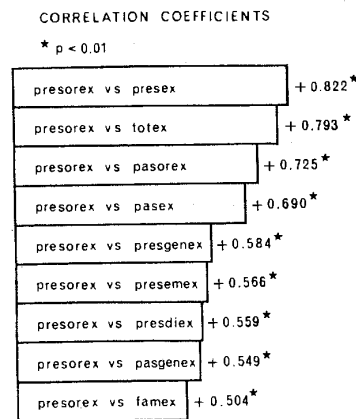


FIGURE 2. The correlation of present oral complaints [PRESOREX] and other parameters of health and disease: PRESEX, present health status; TOTEX, total health score; PASOREX, past oral health index; PASEX, composite past health index; PRESGENEX, present general health index; PRESEMEX, present emotional index; PRESDIEX, present dietary index; PASGENEX, past general health index, and FAMEX, family health index.

#### CONCLUSION

The use of this self-administered questionnaire con-

tributes additional evidence to underscore the concept that the oral cavity and systemic state are related. The findings derived from the OHI underline the fact that, more often than not, individuals with many oral findings are characterized by: relatively poor diet, unfavorable emotional state, significant number of general complaints, a history of considerable past oral and general problems, many positive familial evidences of disease, and an over-all poor total health status.

Conversely, an individual with relatively few oral complaints is more likely to show a more favorable general health picture. (It should be emphasized that these findings in themselves do not prove or disprove cause-and-effect.)

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