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A to Z ORTHODONTICS

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INDEX OF ORTHODONTIC TREATMENT NEED

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The requirements of indices are that they should be:-

i. Clinically valid and reproducible

ii. Objective and yield quantitative data which can be analysed.

iii. Simple, easy and Quick to apply to use

iv. Acceptable to both the profession and the patient.

Index of Orthodontic Treatment Need (IOTN)

This index attempts to rank malocclusion in terms of:-

- The significance of various occlusal traits for an individual's dental health.
- Perceived aesthetic impairment.

It intends to identify those individual who would most likely benefit from orthodontic treatment

IOTN utilized in 2 forms:

- Clinical assessment
- Dental cast assessment

Components of IOTN

- Aesthetic Component (AC)
- Dental Health Component (DHC)

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Aesthetic Component (AC)

AC consists of a scale of ten colour photographs showing different levels of dental attractiveness

The dental attractiveness of prospective patients can be rated with reference to this scale.

Grade 1 represents the most and grade 10 the least attractive arrangements of teeth.

The score reflects the aesthetic impairment.

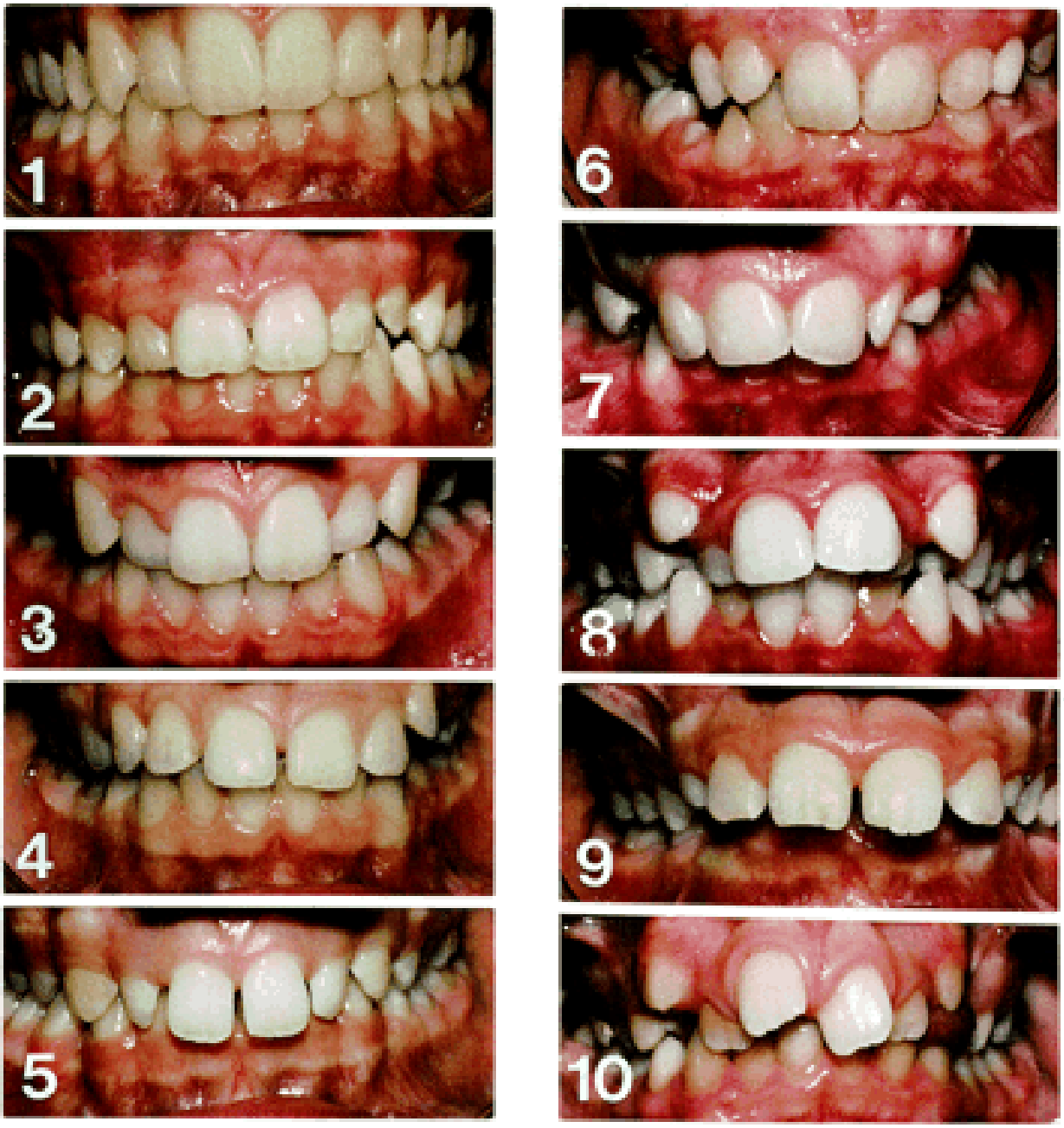
“Here is a set of photographs showing a range of dental attractiveness.

Number 1 is the most attractive and 10 the least attractive arrangements.

Where would you put your teeth on this scale?”

Surprisingly, there is a good agreement between the decisions made by patients, parents and orthodontists

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Dental Health Component (DHC)

- ❑ Records the various occlusal traits of a malocclusion that would increase the morbidity of the dentition and surrounding structures.
- ❑ Each occlusal trait thought to contribute to the longevity and satisfactory functioning of the dentition is defined and placed into five grades, with clear cut-off points between the grades
- ❑ There are five grades categorizing cases from Grade 1 –'No need for treatment' to Grades 4 and 5 –'Need treatment'.

A fundamental premise of the index is the recognition that dental diseases are site specific (eg. Severe displacement of a particular tooth represents a particular disadvantage for that site).

- ❑ The most severe trait identified is the basis for grading the individual's need for treatment on dental health grounds.
- ❑ There is no summing scores for a series of individual traits. Thus, multiple minor variations, each of which is unimportant dental health, cannot be added together to place an individual in a higher grade.
- ❑ Only the worst occlusal feature is recorded.

The Dental Health Component of IOTN

Grade 1 (no need)

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Extremely minor occlusions including contact point displacements less than 1 mm.

Grade 2 (little)

2.a Increased overjet greater than 3.5 mm but less than or equal to 6 mm with competent lips.

2.b Reverse overjet greater than 0 mm but less than or equal to 1 mm.

2.c Anterior or posterior crossbite with less than or equal to 1 mm discrepancy between retruded contact position and intercuspal position.

2.d Contact point displacement of teeth greater than 1 mm but less than or equal to 2 mm.

2.e Anterior or posterior open bite greater than 1 mm but less than or equal to 2 mm.

2.f Increased overbite greater than or equal to 3.5 mm without gingival contact.

2.g Pre-normal or post-normal occlusions with no other anomalies (includes up to half a unit discrepancy).

Grade 3 (Borderline need)

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3.a Increased overjet greater than 3.5 but less than or equal to 6 mm with incompetent lips.

3.b Reverse overjet greater than 1 mm but less than or equal to 3.5 mm.

3.c Anterior or posterior crossbites with greater than 1 mm but less than or equal to 2 mm discrepancy between retruded contact position and intercuspal position.

3.d Contact point displacement of teeth greater than 2 mm but less than or equal to 4 mm.

3.e Lateral or anterior open bite greater than 2 mm but less than or equal to 4 mm.

3.f Deep overbite complete on gingival or palatal tissues but no trauma.

Grade 4 (great)

4.h Less extensive hypodontia requiring prerestorative orthodontic or orthodontic space closure to obviate the need for a prosthesis.

4.a Increased overjet greater than 6 mm but less than or equal to 9 mm.

4.b Reverse overjet greater than 3.5 mm with no masticatory or speech difficulties.

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4.m reverse overjet greater than 1 mm but less than 3.5 with recorded masticatory speech difficulties.

4.c Anterior or posterior crossbites with greater than 2 mm discrepancy between retruded contact position and intercuspal position.

4.1 Posterior lingual crossbite with no functional occlusal contact in one or both buccal segments.

4.d Severe contact point displacements of teeth greater than 4 mm.

4.e Extreme lateral or anterior open bites greater than 4 mm.

4.f Increased and complete overbite with gingival or palatal trauma.

4.t Partially erupted tipped and impacted against adjacent

4.x Presence of supernumerary teeth.

Grade 5 (Need treatment)

5.i Impeded eruption of teeth (with the exception of third molars) due to crowding , displacement, the presence supernumerary teeth, retained deciduous teeth and any pathological cause.

5.h Extensive hypodontia with restorative implications (more than one tooth missing in a quadrant) requiring prerestorative orthodontics.

5.a Increased overjet greater than 9 mm.

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5.m Reverse overjet greater than 3.5 mm with reported masticatory and speech difficulties.

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Dedicated To

My Mom, Zubaida Shaheen

My Dad, Md. Islam

&

My Only Son

Mohammad Sharjil

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