

GEOFFREY WEXLER

BDS Sc MDS Sc LDS FRACDS Dip Orth RCS MSc ORTH
REGISTERED SPECIALIST
ORTHODONTIST

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The Art & Science of the Smile

Eight Tips on Smile Design

1. The Smile Arc/Smile line



The upper incisal edges need to follow the lower lip line in an even curve during relaxed confident smiling, in natural head posture. If the lines are not congruent, we aim to correct them. Variations may result from:

- * worn edges that need restoring
- * reduced overbite or open bite
- * deep bite requiring levelling.

Men may have a flatter smile arc than women because it suits the male stereotype of more prognathism (less overbite).

2. The upper gingival margin line

The anterior maxillary gingival margin needs to follow the upper lip, so that the teeth are framed within the lips on smiling. If there is a lot of wear on the incisors they may benefit from intrusion. This will elevate the gingival margins back to the upper lip line and restore the teeth to their ideal length. Additionally, a gum lift may be in order.



3. Buccal Corridor / Lateral Negative Space "LNS"



The buccal corridor / lateral negative space is the triangular area as seen in a frontal view, between the Commissure and the buccal surfaces of the teeth - usually the premolars. It looks best when small in relation to the upper 3-3 group. The maximum proportion of the LNS should be no more than one third of the upper midline-to-canine dimension on each side. This may be modified either through modifying tooth sizes or tooth positioning. Note that camera flash can create or eliminate LNS. The LNS is "lighting sensitive".

4. Axial Inclinations

A midline can be off centre by 3 - 4 mm before being noticed (Kokich, V. Jnr; 1999), but small deviations in incisal axial inclination stand out. Minor Axial inclinations are easily fixed by tooth shape changes, but major changes require orthodontic intervention or multiple veneers. This famous actor compensates for his gross midline shift with cleverly designed veneer illusions and with a tilted head posture in all still shots, always taken from the left of centre.

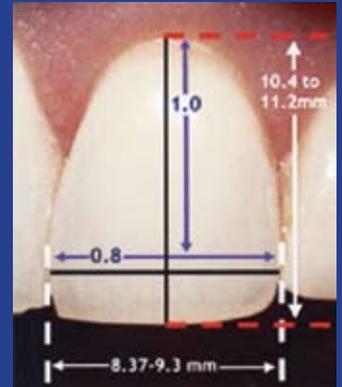


5. Incisal edge morphology

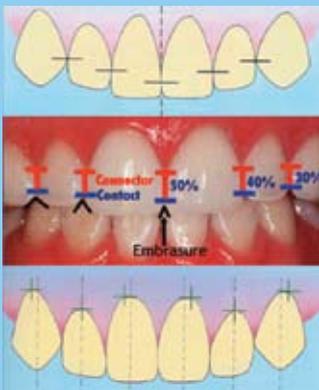
Canine tips should not be flat or pointy. For upper incisors and especially in women, we prefer rounded corners rather than squared-off, sharp corners. Remember; young teeth erupt with mamelons. Sharp edges, wear facets and notches are signs of ageing that a dentist can easily restore to youthful appearance.

6. Tooth proportions

Looking from the front, an upper lateral incisor should be 0.618 of the width of the central; canines need to be 0.618 of the width of a lateral incisor. These "Golden Proportions" may vary slightly however asymmetrical variations are more noticeable. The width of a central incisor across its contact points should be 80% of its height from the zenith to that line across the contacts. (Sarver, D, AJODO 2005). These are the proportions that you as a smile doctor can stretch and blend to suit the patient.



7. Connector Lengths, Embrasure Heights & Zeniths



Moving distally along the arch, embrasure levels ideally change upwards (Rufenacht, C, 1993)

The Contact points are in fact not points but lengths. The contact length decreases distally along the arch. (Sarver, D, AJODO 2004).

On upper anteriors, the zenith of the crown form is slightly distal to the vertical axis of the crown. (Rufenacht, C, 1993). This is in fact another way of showing that the anterior crowns have a very slight mesial inclination.

8. Listen to the patient's detailed concerns carefully

The most important key is satisfying the patient's own perceived needs. This entails listening carefully to what the patient tells you, and ensuring it makes sense in terms of your own clinical assessment. The proposed solution must meet the patient's perceived needs and satisfy your own professional duty to do your best for that patient.

This is the first newsletter of the series from the desk of Dr Geoffrey Wexler. We trust it gave you an insight into the services provided by our team, and the services you can offer to your patients. Dr Wexler provides high quality state of the art specialist orthodontic services for children and adults including the latest in lingual hidden "invisible" braces and early orthopaedic treatments. Please call our office for an easy-to-use referral kit. This kit will inform and assist your patient in making the most of their orthodontic services.



TOORAK
Level 4, Trak Centre
445 Toorak Road Toorak VIC 3142



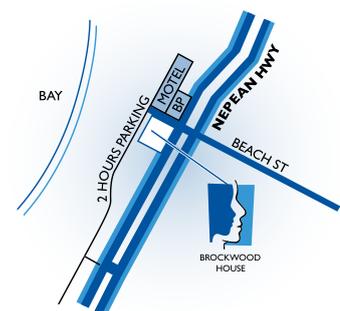
GEOFFREY WEXLER
BDSc, MDSc, LDS, FRACDQ, DipOrth, RCSEd, RCSEdOrth
REGISTERED SPECIALIST
ORTHODONTIST



Specialist Member

ALL APPOINTMENTS
(03) 9783 8577
www.drgeoffreywexler.com.au

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FRANKSTON
Suite 1, Brockwood House
424-426 Nepean Highway Frankston VIC 3199