

## IS UPPER SECOND MOLAR EXTRACTION A SOLUTION FOR CLASS II MALOCCLUSION TREATMENT ?



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## Upper Second Molar Extraction

Important factors to decide whether or not on upper second molar extractions in Class II malocclusion:

- Diagnosis;
- Treatment plan;
- Mechanics;
- Result;
- Stability.

## Diagnosis

Factors to be considered for second molar extraction in the diagnosis are:

- Facial patterns;
- Cefalic esqueletal patterns;
- Age of patient;
- Dental age;
- Size and shape of third molar.

TREVISI, Hugo J. et ZANELATO, Reginaldo T. *State-of-the-Art Orthodontics*. London: Mosby Elsevier, 2011.

## Facial pattern

The upper second molar extractions are indicated to all types of facial pattern:

- Mesofacial;
- Braquifacial;
- Dolicofacial.

## Cefalic Esqueletal Patterns

- Cefalic esqueletal patterns (Class II and Class I):
- Upper second molar extractions are indicated more especifically in Class II cases.
- **In Class I cases, upper and lower second mollar extraction are indicated when there is posterior crowding in the upper and lower archs and the patient has a good or unfavorable facial profile.**

GRABER, T. M. *Maxillary Second Molar Extraction in Class II Malocclusion* in *American Journal of Orthodontics*, Vol 56, p. 331-353, 1969.

## Age of patient

Second molar extractions are indicated on the stage of teenage years, approximately:

- For males, ages 12 to 15 years old .
- For females, ages 11 to 14 years old.

TREVISI, Hugo J. et ZANELATO, Reginaldo T. *State-of-the-Art Orthodontics*. London: Mosby Elsevier, 2011.

## Dental age

The dental age is a very important factor to indicate second molar extraction.

It is recommended when the third coronary of the root is completed.

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## Size and shape

- Assessing the size and shape of the third molars should be precise so that it performs a good function

## Treatment plan and Mechanics

First molar distalization, after second molar extraction, is performed relatively easier.

There is a decompression of the posterior region of the dental arch, creating space for distalization of first molar and creating space for third molar to erupt.

Treatment time reduced significantly in these cases, because of faster Class I interarch relationship.

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## Treatment Plan and Mechanics

The mechanics of upper first molar distalization after upper second molar extraction can have various forms.

Appliances:

- Nance Button;
- Headgear and lip bumper;
- Distalization Jig with class II elastic;
- Miniscrews;
- Forsus etc.

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## Result of treatment

The result is always more harmonious. There is always a molar relationship Class I at the end of treatment.

The facial profile of the patient is more enjoyable and the treatment is finished with 28 teeth.

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## Stability

We have observed that the long term stability is better compared to extractions or no extraction of premolars.

### Advantages Vs Disadvantages

#### Advantages:

- Profile more harmonious;
- End of treatment with 28 teeth;
- Molar relationship Class I;
- Fast dental movement;
- Better stability;

#### Disadvantages:

- Treatment in 2 phases, in some cases.

### Stability of treatment and conclusion

Clinically observed that patients treated with second molar extractions, have more stability along the time when compared with patients treated without extractions and/or cases treated with premolar extractions.

I believe the posterior decompression of maxillary favors stability of long term orthodontic treatment.