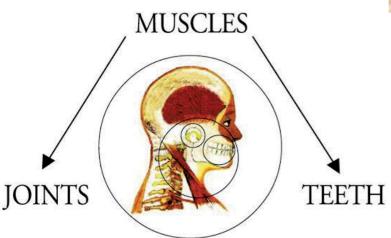
# Neuromuscular Dentistry - A Better Solution for Temporomandibular Disorders: A Narrative Review





Muscles + Joints + Teeth = Neuromuscular Dentistry

Neuromuscular dentistry aims to ensure optimal efficacy in function of the stomatognathic system.

### Far Problems Hissing, buzzing or ringing ✓ Decreased hearing ✓ Ear ache or pain without infection

- ✓ Forehead
- / Temples
- 'Migraine' headaches / "Sinus" headaches
- √ Shooting pain up back of head
- √ Hair and/or scalp

- ✓ Pain behind eyes / Bloodshot eyes
- May bulge out

## Mouth

- ✓ Discomfort
- Limited opening of mouth Inability to open smoothly
- Jaw deviates to one side
- when opening ✓ Locks shut or open

- ✓ Clenching, grinding at night
- / Swallowing difficulties ✓ Laryngitis ✓ Sore throat with no infection
  - ✓ Voice irregularities or changes
  - Freauent coughing or constant clearing of throat

## Neck Problems

/ Clogged, "itchy" ears

/ Vertigo, dizziness

Jaw Problems Clicking, popping jaw joints ✓ Grating sounds

/ Pain in cheek muscles

✓ Uncontrollable jaw and/or

- √ Lack of mobility
- ✓ Neck pain Tired, sore muscles
- Shoulder aches and backaches
- Arm and finger numbness

- √ Feeling of foreign object in throat constantly

## **Available Diagnostic and Treatment Tools**

Magnetic Resonance Imaging (MRI)

Self care

Occlusal appliances/adjustment

Electromyography (EMG)



Transcutaneous Electrical Nerve

Stimulation (TENS)

Joint Vibration Analysis (JVA)

## Conclusion

The spectrum of different interventions and outcome measures means the clinical implications should be cautiously considered. Hence consensus on the understanding of TMD, its diagnosis and treatment measures would yield more rigorous research. NMD is a good base on which the understanding and management of TMD continues to be developed.

Physiotherapy

Behaviour therapy

Surgical intervention

References

Ishan Mukherji, Shruthi Eshwar, Vipin Jain, Srivastava B.K. KLE Society's Institute of Dental Sciences

Aim

To review the newer perspectives/concepts in the diagnosis and clinical management of temporomandibular disorders (TMD).

## Methods

Computerised search of databases: PubMed: 606 references

Cochrane Library: 19 references

Search terms: Craniomandibular disorders/drug therapy/surgery AND Review AND Meta analysis **AND Systematic Review** 

Inclusion criteria: 1. Open access articles in English language in PubMed & Cochrane Library

2. Be a Systematic Review 3. Focus on TMD management Articles screened after applying inclusion criteria: 30 references

Abstracts excluded: 590 references

23 Systematic Reviews

7 Meta-analyses

## Results

Major outcome – Pain & clinical measures

Minor outcome – Psychological status & quality of life.

10 SR & 3 MA- occlusal appliance has similar effect to other therapies.

7 SR & 2 MA- pharmacological treatment, pain reduction for short duration.

4 SR & @ MA – surgical treatment is similar to arthroscopy, discectomy.

2 SR – Physical and behavioural treatment reduces the outcome and better when compared to no treatment.

**Discussion** 

Good evidence – repositioning splint, occlusal appliance, devices – to manage pain.

Limited evidence – Surgical correction, electrophysical methods.

No evidence – occlusal adjustments.

Physical therapy, acupuncture, and behavioural therapy can be considered as conservative approaches.

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- 2. List T., Axelsson S. Management of TMD: evidence from systematic reviews and meta-analyses. Journal of Oral Rehabilitation 2010 37; 430-451

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