

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

30 May 2026

### Comparative evaluation of treatment effect on patients with Myofacial Pain Dysfunction Syndrome (MPDS) by low level laser therapy and Transcutaneous Electrical Nerve stimulation (TENS)

#### Protocol summary

##### Summary

The purpose of this randomized clinical trial study is the effect of two different treatment modalities on patients who referred to temporomandibular dysfunction (TMD) department of dental school of Tehran university of medical sciences. Patients with inability of mouth opening, pain history in masseter, lateral, internal pterygoid, pain history in mouth opening and closing which diagnosed by oral and maxiofacial surgeon are selected for this study. After signing the informed consent, the demographic information of patients is recorded. The patients are randomly divided to 2 groups of laser and physiotherapy. In first group, patients are treated with Transcutaneous Electrical Nerve Stimulation (TENS) 3 times a week for 10 sessions and second group with low level laser with wavelength of 810 nm in continuous mode for 10 sessions. The energy of laser for each trigger point is 2 J. the data from Questionnaire are analyzed to evaluate the satisfaction level of each treatment.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201209087680N2**

Registration date: **2012-10-11, 1391/07/20**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2012-10-11, 1391/07/20

##### Registrant information

##### Name

Nasim Chiniforush

##### Name of organization / entity

Laser Research Center of Dentistry

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 8849 7429

##### Email address

n-chiniforush@farabi.tums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Laser research center of dentistry

##### Expected recruitment start date

2012-10-06, 1391/07/15

##### Expected recruitment end date

2013-10-07, 1392/07/15

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparative evaluation of treatment effect on patients with Myofacial Pain Dysfunction Syndrome (MPDS) by low level laser therapy and Transcutaneous Electrical Nerve stimulation (TENS)

##### Public title

The effect of low level laser and physiotherapy on patients with muscle spasms

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: inability of mouth opening, pain history in masseter, lateral, internal pterygoid, pain history in mouth opening and closing, headache and neckache,

clicking. Exclusion criteria: pregnancy and history of cancer.

**Age**

No age limit

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

No information

**Sample size**

Target sample size: 20

**Randomization (investigator's opinion)**

Randomized

**Randomization description****Blinding (investigator's opinion)**

Not blinded

**Blinding description****Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Tehran University of Medical Sciences

**Street address**

Tehran University of Medical sciences, Gouds Avenue

**City**

Tehran

**Postal code****Approval date**

2012-09-05, 1391/06/15

**Ethics committee reference number**

63873

**Health conditions studied****1****Description of health condition studied**

joint-pain syndrome

**ICD-10 code**

K07.6

**ICD-10 code description**

Temporomandibular joint-pain-dysfunction syndrome

**Primary outcomes****1****Description**

Muscle stiffness

**Timepoint**

one week later, one month later, three month later

**Method of measurement**

VAS

**2****Description**

stress

**Timepoint**

one week later, one month later, three month later

**Method of measurement**

VAS

**Secondary outcomes**

empty

**Intervention groups****1****Description**

Intervention: laser irradiation with 2J energy three times a week for 10 sessions

**Category**

Rehabilitation

**2****Description**

TENS(transcutaneous electrical nerve stimulation) for 10 sessions

**Category**

Rehabilitation

**Recruitment centers****1****Recruitment center****Name of recruitment center**

TMJ department, School of Dentistry, Tehran University of Medical Sciences

**Full name of responsible person****Street address****City**

Tehran

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Laser Research Center of Dentistry, Tehran University of Medical Sciences

**Full name of responsible person**

Abbas Monzavi

**Street address**

Qods avenue

**City**  
Tehran

**Grant name**

**Grant code / Reference number**

**Is the source of funding the same sponsor organization/entity?**  
Yes

**Title of funding source**  
Laser Research Center of Dentistry, Tehran University of Medical Sciences

**Proportion provided by this source**  
100

**Public or private sector**  
*empty*

**Domestic or foreign origin**  
*empty*

**Category of foreign source of funding**  
*empty*

**Country of origin**

**Type of organization providing the funding**  
*empty*

## Person responsible for general inquiries

### Contact

**Name of organization / entity**  
Laser Research Center of Dentistry

**Full name of responsible person**  
Nasim Chiniforush

**Position**  
Research supervisor

**Other areas of specialty/work**

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## Person responsible for scientific inquiries

### Contact

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Reza Fekrazad

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MS, DDS

**Other areas of specialty/work**

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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**  
*empty*

**Study Protocol**  
*empty*

**Statistical Analysis Plan**  
*empty*

**Informed Consent Form**  
*empty*

**Clinical Study Report**  
*empty*

**Analytic Code**  
*empty*

**Data Dictionary**  
*empty*