

TMD Research Diagnostic Criteria

The Research Diagnostic Criteria¹ (RDC) categorise TMD criteria into 3 groups according to the common factors among conditions. Other TMJ disorders, which are uncommon, or have no reliable criteria or examination methods, are excluded.

TMD's RDC groups are:

- I GROUP I: *Muscle disorders*:
 - I.a Myofascial pain
 - I.b Myofascial pain with limited opening
- II GROUP II: *Disc Displacements (DD)*:
 - II.a DD with reduction
 - II.b DD without reduction with limited opening
 - II.c DD without reduction without limited opening
- III GROUP III: *Other common Joint disorders*:
 - III.a Arthralgia
 - III.b Osteoarthritis
 - III.c Osteoarthrosis

A subject can be allocated one muscle disorder at the most. In addition, each joint can be assigned one diagnosis from each group (II and III). Therefore, a number of diagnoses can be given to one person at one time, ranging from 0 (no TMD diagnosis) up to 5. However, it is uncommon to assign more than 3 diagnoses to one patient.

Summaries of the details of each category of RDC/TMD diagnosis are contained in the following tables. A fuller written description is contained in Dworkin's original article² and algorithms allowing the diagnosis to be made from components of the RDC history and examination sheets can be found at <http://rdc-tmdinternational.org/>.

¹ RDC/TMD: was published by a group of American researchers in 1992, aiming to:

- a. Critically revise TMD diagnostic systems in use
- b. Critically revise reliability and validity of TMD examination methods
- c. Standardise TMD examination procedure
- d. Establish research diagnostic criteria for TMD
- e. Assess pain related disability and psychological status in TMD patients.

² Dworkin SF. LeResche L. Research diagnostic criteria for **temporomandibular disorders**: review, criteria, examinations and specifications, critique. [Review] [152 refs] [Journal Article. Review. Review, Tutorial] *Journal of Craniomandibular Disorders*. 6(4):301-55, 1992 Fall.

Research Diagnostic Criteria for the Temporomandibular Disorders RDC/TMD

Group	Criteria
I Muscle Disorders	
I.a Myofascial pain: Key: Painful muscles	<ol style="list-style-type: none"> 1. Reported pain in masticatory muscles ¹ 2. Pain on palpation in at least 3 sites ², one of them at least in the same side of the reported pain
I.b Myofascial pain with limited opening: Key: Painful muscles + limited movement	<ol style="list-style-type: none"> 1. Myofascial pain 2. Pain-free unassisted ³ opening < 40 mm and Passive ⁴ stretch ≥ 5 mm
II Disk Displacements	
II.a Disc displacement with reduction: Key: Reproducible clicking	<ol style="list-style-type: none"> 1. No pain in the joint 2. Reproducible ⁵ click on excursion with either opening or closing click 3. With click on opening and closing (unless excursive click confirmed): <ul style="list-style-type: none"> • Click on opening occurs at ≥ 5 mm interincisal distance than on closing • Clicks eliminated by protrusive opening
II.b Disc displacement without reduction with limited opening: Key: Limited opening with no clicking	<ol style="list-style-type: none"> 1. History of locking or catching that interfered with eating 2. Absence of TMJ clicking 3. Unassisted opening (even painful) ≤ 35mm and passive stretch ≤ 4mm 4. Contralateral excursion < 7mm Or Uncorrected ipsilateral deviation on opening
II.c Disc displacement without reduction without limited opening: Key: History of previously limited opening-imaging needed to confirm DD	<ol style="list-style-type: none"> 1. History of locking or catching that interfered with eating 2. The presence of TMJ sounds excluding DDR clicking 3. Unassisted opening (even painful) > 35mm and passive stretch > 4mm 4. Contralateral excursion ≥ 7mm 5. Optional imaging (Arthrography or MRI) to confirm DD
III Other common joint diseases⁶	
III.a Arthralgia: Key: Painful TMJ / no crepitus	<ol style="list-style-type: none"> 1. Pain on TMJ palpation either laterally or intra auricular 2. Self reported joint pain with or without jaw movement 3. Absence of crepitus, and Possibility of clicking
III.b Osteoarthritis: Key: Painful TMJ + crepitus	<ol style="list-style-type: none"> 1. Pain as for Arthralgia 2. Crepitus on any movement or radiographic evidence of joint changes⁷
III.c Osteoarthrosis: Key: Non painful TMJ + crepitus	<ol style="list-style-type: none"> 1. Crepitus on any movement or radiographic evidence of joint changes⁷ 2. No reported joint pain nor pain on any movement

Derived by Moufti MA & Wassell RW from Dworkin SF & LeResche L. *Journal of Craniomandibular Disorders*. 6(4):301-55, 1992

¹ In the jaw, temples, face, preauricular area, or inside the ear, at rest or function

² There are 20 sites (ten on each side): posterior, middle and anterior Temporalis; origin, body and insertion of Masseter; posterior mandibular region; Submandibular region; lateral Pterygoid; tendon of Temporalis.

³ Interincisal opening plus overbite **or** interincisal opening minus anterior open bite.

⁴ Passive stretch: The examiner's index and thumb are used to moderately force the mouth to open wider than unassisted opening. Patients are instructed to raise a hand to signal when the stretch becomes too uncomfortable.

⁵ All clicks must be reproduced 2 out of 3 consecutive trials

⁶ Polyarthritides, acute traumatic injuries, infections, developmental defects and neoplasia should be ruled out.

⁷ Erosion of cortical delineation, sclerosis of parts or all the condyle and articular eminence, flattening of Joint surfaces, osteophyte formation