TMD Research Diagnostic Criteria

The Research Diagnostic Criteria\(^1\) (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 article\(^2\) 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/](http://rdc-tmdinternational.org/).

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\(^1\) 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.

# Research Diagnostic Criteria for the Temporomandibular Disorders RDC/TMD

<table>
<thead>
<tr>
<th>Group</th>
<th>Criteria</th>
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<tbody>
<tr>
<td><strong>I</strong></td>
<td><strong>Muscle Disorders</strong></td>
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</table>
| **I.a** | **Myofascial pain:**  
Key: Painful muscles  
1. Reported pain in masticatory muscles  
2. Pain on palpation in at least 3 sites, 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  
1. Myofascial pain  
2. Pain-free unassisted 3 opening < 40 mm and Passive 4 stretch ≥ 5 mm |

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<thead>
<tr>
<th><strong>II</strong></th>
<th><strong>Disk Displacements</strong></th>
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| **II.a** | **Disc displacement with reduction:**  
Key: Reproducible clicking  
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):  
   • 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  
1. History of locking or catching that interfered with eating  
2. Absence of TMJ clicking  
3. Unassisted opening (even painful) ≤ 35 mm and passive stretch ≤ 4 mm  
4. Contralateral excursion < 7 mm 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  
1. History of locking or catching that interfered with eating  
2. The presence of TMJ sounds excluding DDR clicking  
3. Unassisted opening (even painful) > 35 mm and passive stretch > 4 mm  
4. Contralateral excursion ≥ 7 mm  
5. Optional imaging (Arthrography or MRI) to confirm DD |

| **III** | **Other common joint diseases**  
6 |
|-------|------------------------|
| **III.a** | **Arthralgia:**  
Key: Painful TMJ / no crepitus  
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  
1. Pain as for Arthralgia  
2. Crepitus on any movement or radiographic evidence of joint changes  
7 |
| **III.c** | **Osteoarthrosis:**  
Key: Non painful TMJ + crepitus  
1. Crepitus on any movement or radiographic evidence of joint changes  
7  
2. No reported joint pain nor pain on any movement |

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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

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