



# Clinical Use Protocol

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## Introduction

This Clinical Use Protocol contains the necessary information to request OrthoApnea mandibular advancement devices (MAD).

In this protocol you will find:

- How to take registers.
- How to send files to DPS

Mandibular advancement devices are suitable for patients that suffer from mild to moderate obstructive sleep apnea. It can be recommended to patients who seriously suffer from this condition and are intolerant to other treatments. They're also suitable for snorers.

It's not advisable to use the product if the patient suffers from central sleep apnea, other respiratory diseases, advanced periodontal problems or is under 18 years old.

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Protocol

# Impression taking

# 1. Dental registration Silicone

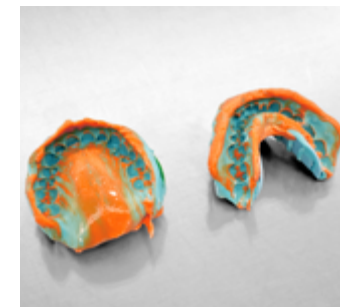
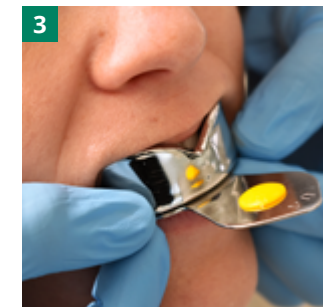
## Upper and lower dental arch registration

The registration is taken with heavy and light silicone in just one step. Do not use alginate under any circumstances.

Impressions will be emptied in plaster and digitised in OrthoApnea.

Follow these steps:

1. Add heavy and light silicone onto the cuvettes.
2. Register the lower arch
3. Register the upper arch



Result of impressions.

# 1. Dental registration

## Digital

### Upper and lower dental arch registration

Registration of upper and lower arches:

The registration is taken with an intraoral scanner. Follow the specific instructions of your scanner:

1. Scan the occlusal surface.
2. Lingual/palatine scanning.
3. Vestibular scanning, scan the previous area in zigzag mode up to the incisive occlusal edge.



Result of digital registration.

## 2. Measurements

### Maximum retrusion

### Maximum protrusion



Adjust the gap gauge to the lower central incisors (The incisal cusp should come into contact with the bottom of the cleft).

Attach the gauge screw.



Place the gauge combination into the patient's mouth.

Make sure the upper arches midline coincides with the fork mark.

Make sure the upper central incisors touch the bottom of the cleft.



Guide the patient to slide their jaw from a centric position to a maximum retrusive and protrusive position.

It's recommended to repeat it 3 times and take note of the highest obtained value for the maximum retrusion and protrusion.

Any measurement device can be used to measure the maximum retrusion and protrusion. In this case, the George gauge is being used to detail the procedure.



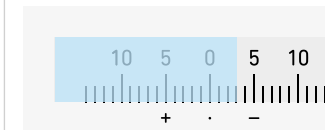
#### Maximum retrusion

The jaw moves backwards from the centric position.



#### Maximum protrusion

The jaw moves forward from the centric position.



Example:  
Maximum retrusion -3.



Example:  
Maximum protrusion +7.

## 2. Measurements

### Starting Point (SP)

#### Calculation of the SP and George gauge configuration

The Starting Point is the mandibular advancement therapeutic position where the treatment starts. The bite is registered in this position.

Scientific bibliography recommends the use of an advancement therapeutic position between 60% and 70% (AP) of the Total Advancement Range (TR).

#### George gauge configuration

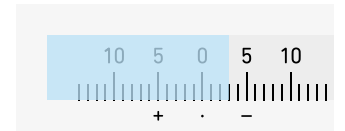
#### Calculation

#### Example

MAXIMUM RETRUSION MEASUREMENT

MR

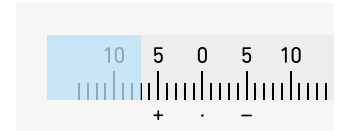
MR = -3 mm



MAXIMUM PROTRUSION MEASUREMENT

MP

MP = +7 mm



CALCULATION OF THE TOTAL MANDIBULAR ADVANCEMENT RANGE

TR

TR = MP - MR

TR = +7 - (-3) = +7 + 3 = 10 mm

ADVANCEMENT PERCENTAGE

AP

AP = 60%

STARTING POINT CALCULATION

SP

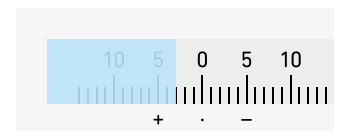
SP = TR x AP / 100

SP = 10 x 60 / 100 = 6 mm

SP CONFIGURATION ON THE GAUGE

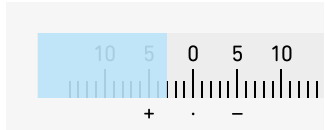
MR + SP

-3 + 6 = +3 mm





### 3. Bite registration Silicone



The calculated SP is used to configure the gauge in an advancement therapeutic position. Attach the 5mm fork with the upper screw.



Introduce the gauge in the mouth (without the biting silicone).  
Make sure the incisors fit the gap and that the midline is centred.



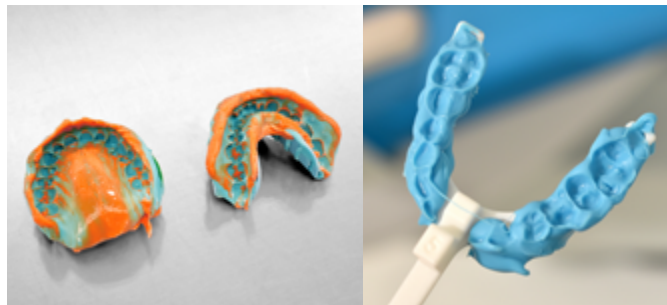
Apply the biting silicone between the gauge and the teeths occlusive side.



If the George gauge isn't being used, make sure there's a minimum 3mm distance between the molars cusps.

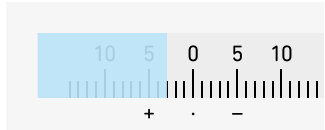
#### Delivery using silicone method.

Deliver the dental arches re-  
registrations and the fork with  
the bite registration (without  
the gauge) to OrthoApnea or  
to your countries distributor.



### 3. Bite registration

#### Digital



The calculated SP is used to configure the gauge in an advancement therapeutic position. Attach the 5mm fork with the upper screw.



Introduce the gauge in the mouth (without biting material).  
Make sure the incisors fit the gap and that the midline is centred.



Apply the biting silicone between the gauge and the teeth occlusive side.



Avoid silicone accumulation in the vestibular area of both arches to facilitate dental recognition while scanning. The silicone hidden behind the vestibular side can be removed with a scalpel as long as the occlusive side has properly marked teeth.

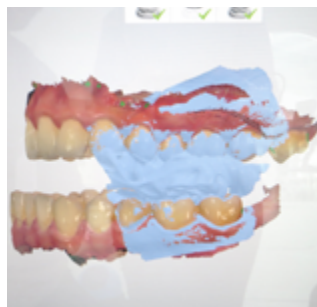


Scan the bite.

If the George gauge isn't being used, make sure there's a minimum 3mm distance between the molars cusps.

#### Delivery using an intraoral scanner

Send the files through the communication scanning platform or through <https://dpsdental.com/files>





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