

## Protocol for Minimally Invasive Custom Orthognathics

Minimally Invasive Custom Orthognathics is a product of a partnership between CPMH and Boneeasy. This product is under the philosophy of getting the best results according to a plan and being as less invasive as possible.

To order a Minimally Invasive Custom Orthognathics, we need specific data, that needs to be the most precise as possible, to do an accurate reverse planning of the surgery.

### CT scan

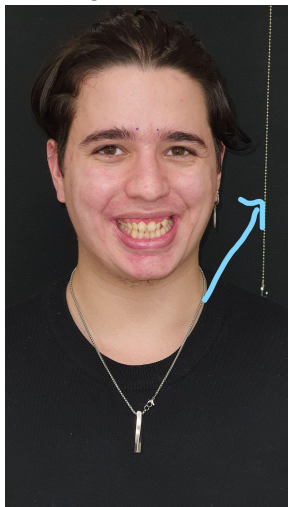
- Ct scan must be a facial scan with the entire soft tissue area; the skin contour is fundamental for a correct diagnosis.
- The technician should be careful, watch the patient so he doesn't move, if possible to strap his head to the machine.
- The acquisition should be made in Centric Occlusion, for that sometimes a "JIG" is important but it cannot surpass the teeth to buccal, because it changes the position of the lip.
- The teeth should be separated superior from inferior in about 2mm (JIG, for instance).

### Teeth scanning

- Both jaws should be scanned, getting to the fund of the vestibule, on buccal side, and ensure that the occlusal surface is correct (no automatic fillings)
- A bite scan should also be performed.

### Photos

Patient photos are one of the most important data in Orthognathic surgery planning. All the photos should have a pendulum at the side to understand the position of the head in relation to the ground.



the sequence is:



### Workflow

Communication and time saving is the most important thing to achieve a good result. We know that surgeons don't have much time available, so we are always trying to reduce the time spent by them with planning analysis. Our designers create the plannings that are validated by a company partner surgeon, before sending the plannings for requiring surgeon analysis.

1. Surgeon upload the mentioned files on this document, along with the ordering document (template provided by boneeasy)

2. Our team will make a plan of osteotomies and movement of the jaws, which is revised by a surgeon.
3. A report, along with a video, is sent for approval
4. After evaluation of the surgeon, he can ask for changes or, if in agreement with sent design, ask to move forward. If communication is not enough, an online meeting between the surgeon and the designer
5. Boneeasy team starts manufacturing the hardware, that was proposed on the planning
6. The content is the follow:
  - a. titanium surgical guides
  - b. intermediate and final splint (resin)
  - c. titanium plates
  - d. screws
  - e. models pre and pos osteotomies and jaws movement
  - f. standard plates as a plan B if atypical fractures occur during osteotomies
  - g. technical files with the length of screws planned, and its positiond