

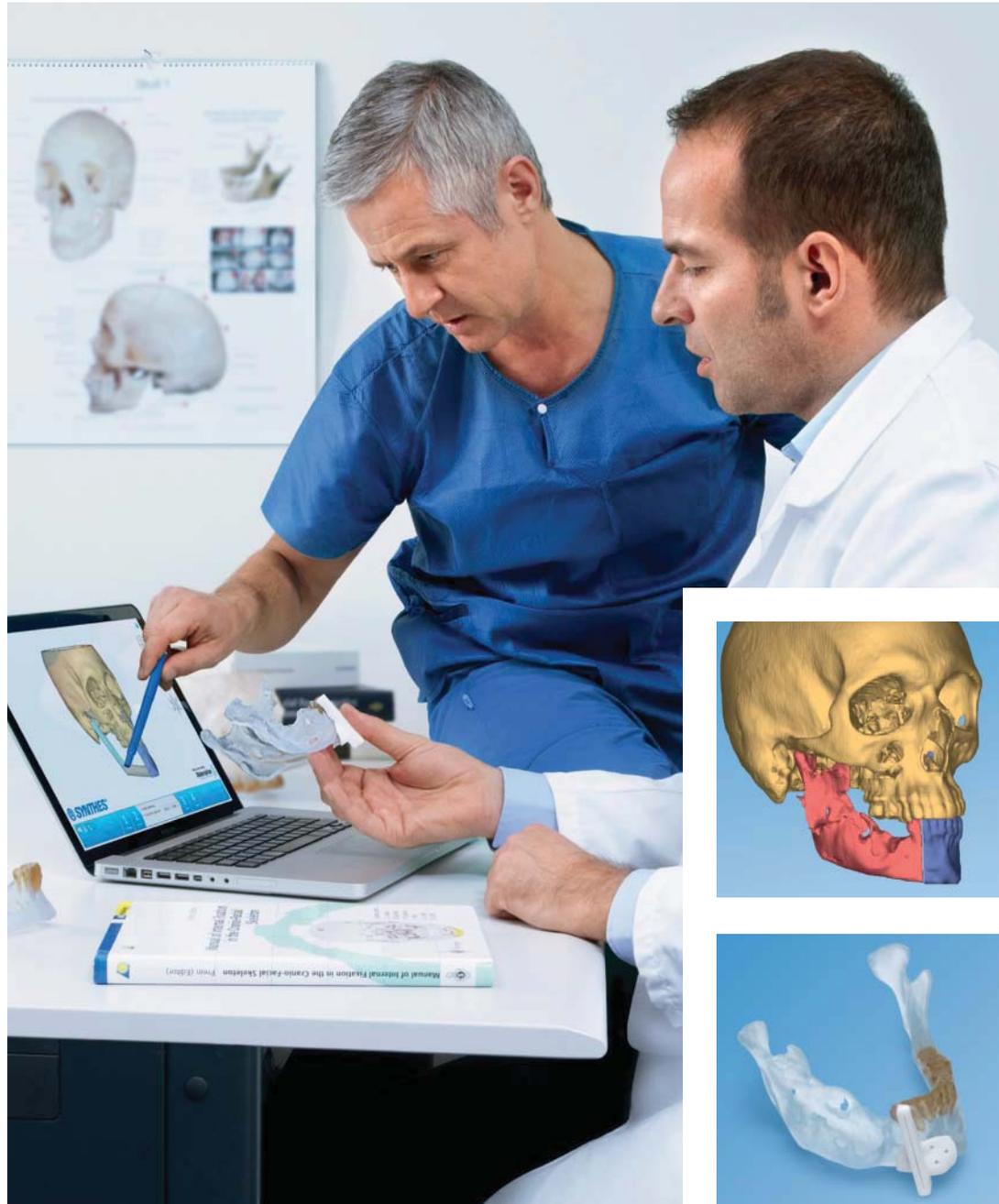
# Synthes ProPlan CMF.

Planning service and patient-specific products for maxillofacial surgery.

Execution of pre-planned procedures in the OR

Reduced surgery time

Informed clinical decisions with the aid of computer-assisted planning



# Synthes ProPlan CMF. Planning service and patient-specific products for maxillofacial surgery.

## Surgeon Workflow

Synthes ProPlan CMF is a computer-aided surgical planning service for preoperative case visualization, which includes patient specific surgical guides to transfer the plan to the operating room.

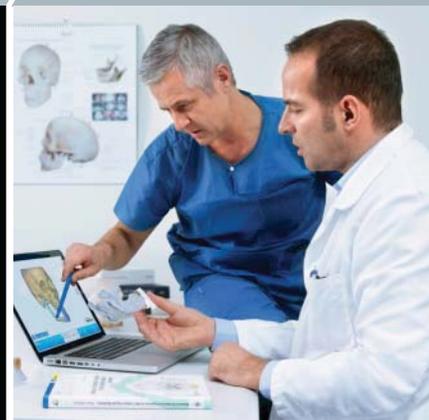
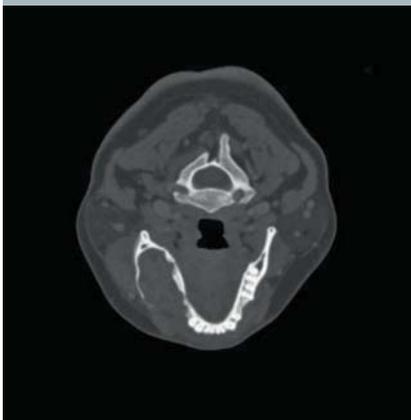
Synthes ProPlan CMF products and services include ProPlan CMF planning services, anatomic bone models, surgical guides, and Synthes ProPlan CMF Connect.

Synthes ProPlan CMF planning services and patient specific products are available for the following procedure types:

- Mandible Reconstruction
- Midface Reconstruction
- Distraction Osteogenesis
- Orthognathic Surgery
- Cranial Reconstruction

**1 Scan** the patient and submit the request for service form CT scan data and dental models\*

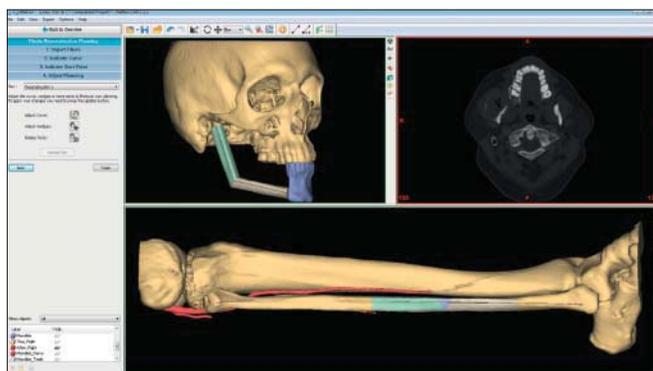
**2 Plan** during interactive planning session



## Synthes ProPlan CMF Planning Service

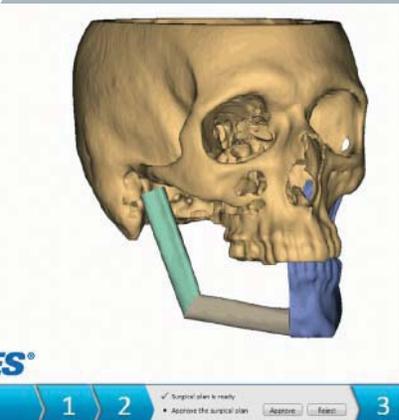
Synthes ProPlan CMF planning services utilizes the Synthes ProPlan CMF software to virtually plan cases. There is no need to download or be proficient in the use of the software. Working with our planning service allows:

- Live interactive planning session with a knowledgeable support team
- The surgeon to make critical clinical decisions preoperatively
- 2D and 3D visualization of preoperative patient anatomy and condition
- Visualization of movement of osteotomized bone structures (e.g. maxillary and mandibular movements) in the planning of orthognathic cases
- Cephalometric analysis
- Visualization of the clinical plan to validate the planned, clinical result
- Simulation of skeletal osteotomies for harvest and reconstruction sites
- Soft-tissue simulation and (3D) photomapping



\* Dental cast models required for orthognathic planning.

### 3 Approve the surgical plan



### 4 Receive guides and anatomic models



### 5 Perform the surgery



## Anatomical models

Anatomic bone models provide a tactile representation of the anatomy, or plan for surgical outcome. They can be produced from the original patient CT scan or to the planned outcome as generated using Synthes ProPlan CMF. Anatomic bone models can also be used to improve communication with the surgical team and patient.

- Select from two materials for anatomical models to meet your specific needs, acrylic or polyamide
- Acrylic anatomic bone models are colorizable and maintain their color after steam sterilization

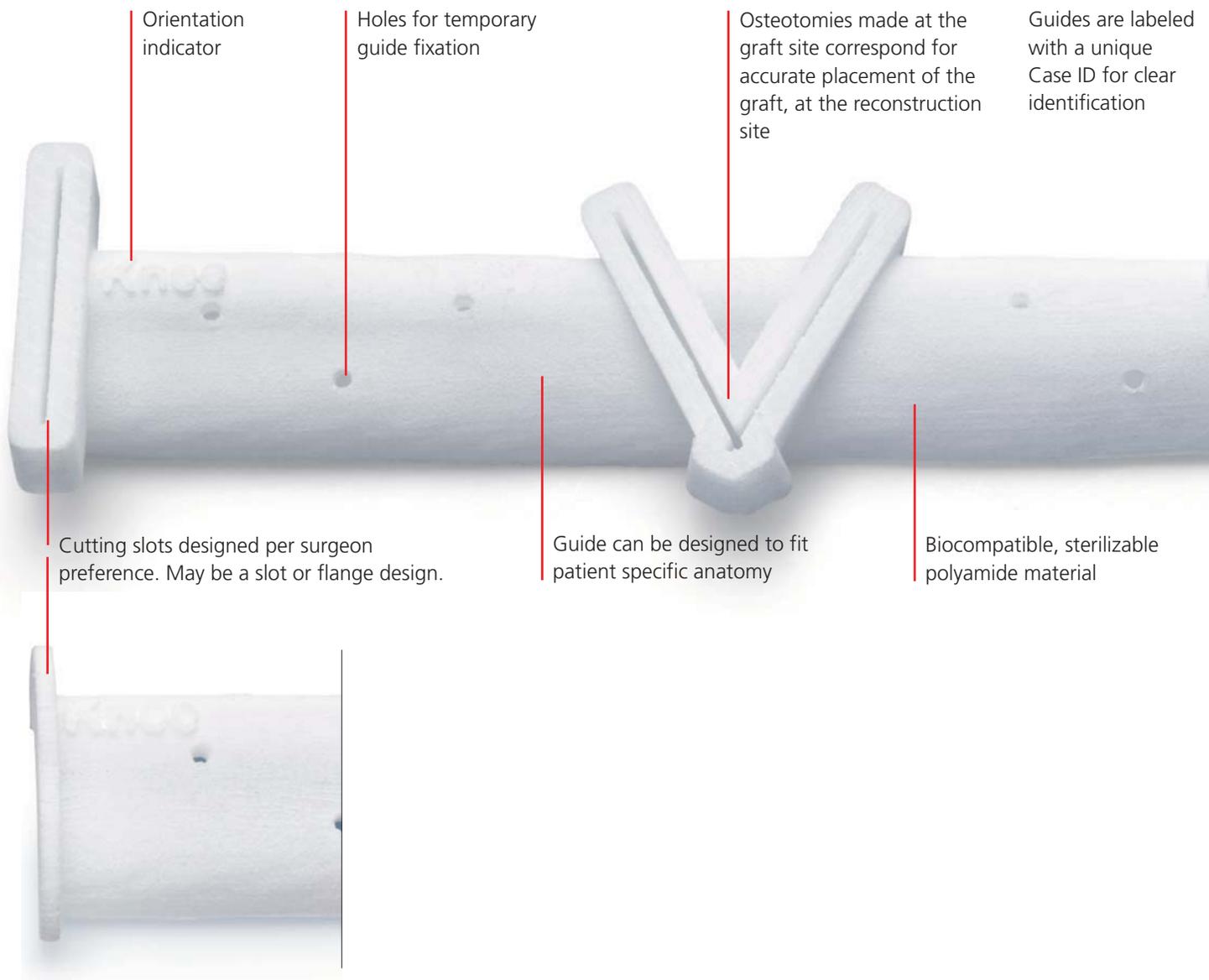


## Surgical Guides

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After the case is planned and approved, patient specific surgical guides are designed and produced for use in surgery. They offer:

- accurate transfer of the surgical plan to the operating room
- reduced OR time\*

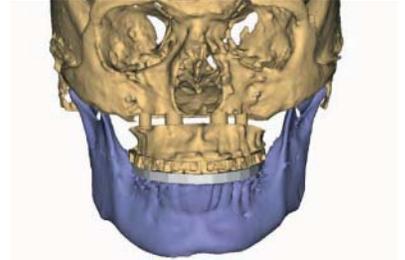


\* Based on initial clinical feedback

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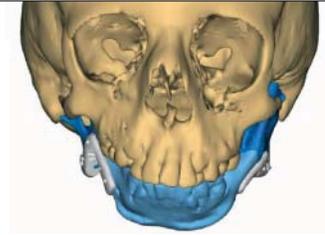
**Orthognathic splint**

- Intermediate splint
- Final splint



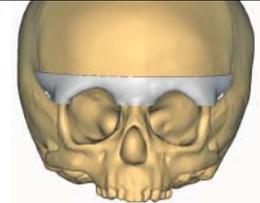
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**Osteotomy and positioning guide for distraction**



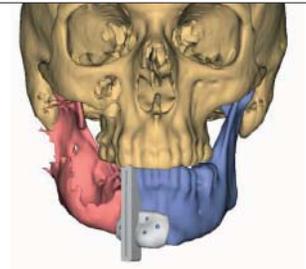
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**Guide for cranial reconstruction**



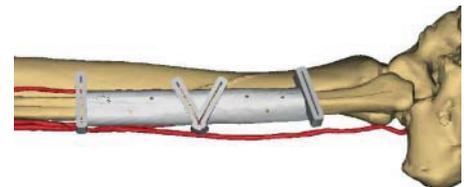
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**Mandible and midface resection guides**



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**Graft harvest guide for reconstruction**

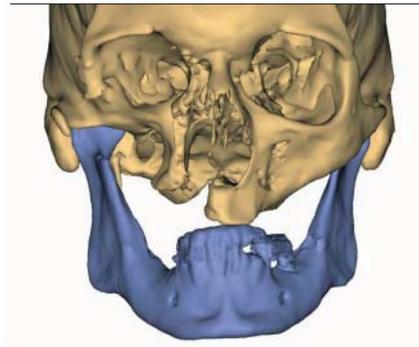
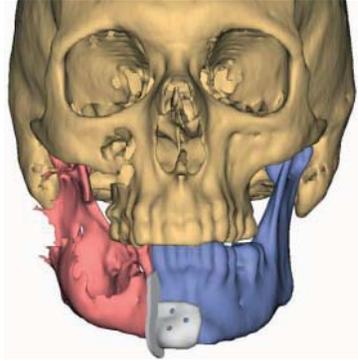


# ProPlan CMF Procedures

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## Mandible and Midface Reconstruction

- Preoperative planning for virtual simulation of resection, grafting, and reconstruction
- Anatomic bone models available for a tactile representation of preoperative patient anatomy and condition, and/or planned outcome
- Surgical guides for resection or graft harvest (fibula, iliac, scapula)
- Patient Specific Plate Contouring (PSPC)\* available for mandible reconstruction cases

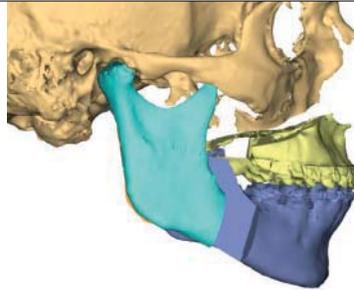


\* Patient-specific Plate Contouring (PSPC) are manufactured by Synthes. Available for reconstruction cases.

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### Orthognathic Surgery

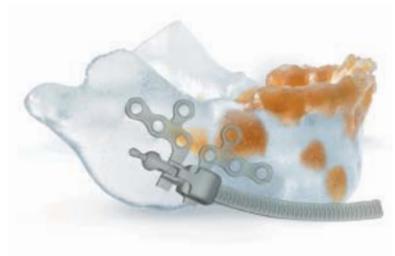
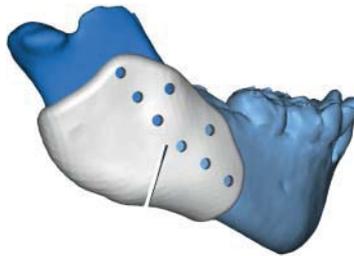
- Preoperative planning for virtual simulation of Maxillary/ BSSO osteotomies, occlusion-based positioning and soft tissue simulation
- Positioning splints for the transfer of the virtual plan to the OR, indicating the steps of the surgery based on dentition (occlusal) information.
- Intermediate and final occlusion splints available



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### Distraction Osteogenesis

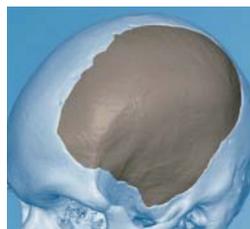
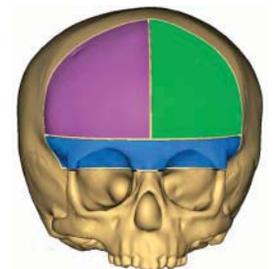
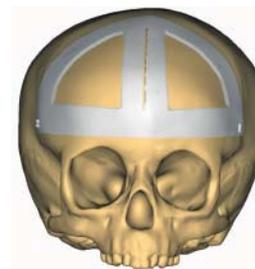
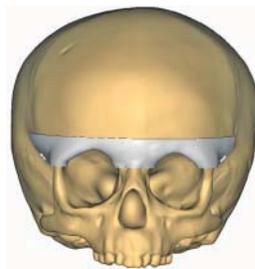
- Preoperative planning for virtual simulation of osteotomies, positioning of Synthes distractors, simulation of osteotomies and placement of footplates
- Anatomic bone models available for a tactile representation of preoperative patient anatomy and condition, and/or planned outcome
- Osteotomy and positioning guide for placement of distractor footplates\*



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### Cranial Reconstruction

- Preoperative planning for virtual simulation of resection, grafting, and reconstruction of bony segments
- Anatomical bone models available for a tactile representation of preoperative patient anatomy and condition, and/or planned outcome
- Surgical guides for segment and/or graft resection and segment (re-)placement
- Patient-specific implants (PSI) available for reconstruction†



\* See Synthes Distractor brochure for additional information.

† Patient-specific implants are manufactured by Synthes.

# Synthes ProPlan CMF Connect

Synthes ProPlan CMF Connect is a web-based interface that can be used to manage and track cases created for Synthes ProPlan CMF planning services. Create cases (Figure 1), upload CT scan data (Figure 2) and visualize surgical plans (Figure 3, 4) at your convenience. Synthes ProPlan CMF Connect also utilizes an integrated 3D viewer which can be used to visualize the patient anatomy, and surgical guides.

## How to Get Started:

To get started, contact your local Synthes Sales Representative for more information.

You can also initiate your Synthes ProPlan CMF experience by visiting our website at [www.synthescustomization.com](http://www.synthescustomization.com) and clicking 'Online Request' to download Synthes ProPlan CMF Connect. After initial registration, you will be able to submit Request for Service forms and CT scan images for your patients, and track the progress of your cases.

Simply launch the application from your desktop when you want to add, modify or track a case.



**Note:** Synthes ProPlan CMF Connect is an online tool and an internet connection is required to run the application. Follow the online instructions to complete the process.

Alternatively, you can place orders, contact us, or get additional information using any of the following:

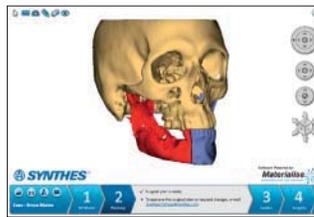
- View our website at [www.synthescustomization.com](http://www.synthescustomization.com)
- Via e-mail at [synthesccshelp@synthes.com](mailto:synthesccshelp@synthes.com)
- (US) 866-332-7386
- (Canada) 888-855-5513 ext. 227



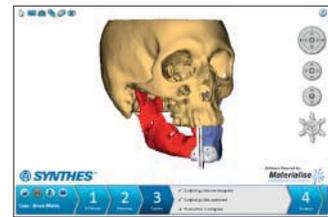
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