



e-ORTHO
SHOULDER

User Manual

V 1.1 May 2021

Support

e-ortho@fh-industrie.com



Caution, consult accompanying documents

Instructions for use [\(EN\)](#) [\(FR\)](#)

Terms and conditions of use [\(EN\)](#) [\(FR\)](#)

Scan protocol [\(EN\)](#) [\(FR\)](#)

[e-Ortho tutorials](#)



CAUTION: Federal law restricts this device to sale by or on the order of a physician.



271627 e-ORTHO SHOULDER

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STANDARDS AND REGULATION

This product conforms to the following main standards and regulatory requirements:

DIRECTIVE

93/42 / EEC as amended by Directive 2007/47 / EC

STANDARDS

EN 62366
EN 62304

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WARRANTY

Please read the e-Ortho Terms and Conditions Agreement carefully available on

<https://e-ortho.fhortho.com>



Help button

MODIFICATION

The information given in this document is subject to modification without notice. We have done our utmost to ensure the accuracy of the information given in this document.

Contents








1. Introduction	4
2. Symbols	4
3. Product Description	4
4. Opening e-Ortho	6
5. Creating an e-Ortho user account	6
5.1. Sending an account request	6
5.2. Setting your password	7
6. Planning an FH-Ortho Arrow surgical case	8
6.1. Creating a surgical case	8
6.2. How the e-Ortho team prepare your planning input	9
6.3. Starting a surgical plan	10
6.4. Global user interfaces	11
6.4.1. Show/hide Objects	11
6.4.2. Changing the orientation of the 3D model	11
6.4.3. Working with the CT Image	12
6.4.4. Comments	12
6.5. Patient anatomy page	13
6.5.1. Patient native anatomy parameters	13
6.5.2. Confirmation of 2D (axial and coronal)/3D parameters	14
6.6. Glenoid planning page	16
6.6.1. Glenoid warnings	18
6.7. Screws planning page	19
6.7.1. Screw warnings	19
6.8. Humeral planning page	20
6.9. Shoulder planning page	21
6.10. Validating the surgical plan	22
6.11. Visualisation mode X-Ray	22
6.12. Visualization of bone density	22
6.13. Managing cases of B2 (biconcave glenoid)	23
6.14. Surgical planning report	24
7. Managing your cases	25
7.1. E-mail notifications	25
8. Contact/Help	26
9. Troubleshooting	26
10. Minimum System Requirements	28

1. Introduction

This document is the user manual for e-ORTHO SHOULDER.

This document is intended strictly for orthopaedic surgeons who expect to use the e-ORTHO shoulder system.

2. Symbols

	Warning: This symbol is used to warn the user about a potential risk concerning the use of the product that might have consequences on patient or user safety.
	Recommendation: This symbol is used to make a recommendation to the user about the use of the product, without any consequences on patient or user safety.
	Read the user instructions
	Manufacturer name
	Product reference
	Unique device identification
	Support and Help.

3. Product Description

e-ORTHO Shoulder is a web-based software program intended to be used by surgeons as an information tool in the planning of a primary total shoulder replacement.

e-ORTHO allows you to plan the glenoid component and humeral component of an Arrow prosthesis.



If there is a contraindication to planning the humeral component, (e.g. humeral head fracture) you will still be able to access glenoid component planning, if this is possible.

e-ORTHO shoulder helps you:

- To understand your patient's anatomy prior to surgery,
- To perform a preoperative 3D implant positioning within the entire specific patient's bone (scapula and humerus) using reliable landmarks.



e-ORTHO shoulder is intended to be used only with the following implants:

• **Arrow Anatomical shoulder prostheses**

- **Glenoid Implant:**

- Cemented glenoid implant
- Metal-back glenoid implant
 - Metal-back glenoid baseplate
 - Glenoid insert
 - Orthopaedic screws

- **Humeral implant**

- Humeral stem (cementless or cemented)
- Humeral head
 - Centred humeral head
 - Off-centred humeral head

• **Reverse shoulder prostheses**

- **Glenoid Implant:**

- Metal-back glenoid implant
 - Metal-back glenoid baseplate
 - Glenosphere
 - Orthopaedic screws

- **Humeral implant**

- Humeral stem (cementless or cemented)
 - Humeral insert
-



e-ORTHO shoulder is contraindicated in the following cases:

- Patients without a CT Scan exam in line with the FH ORTHO protocol,
 - Patients undergoing shoulder revision surgery,
 - Patients contraindicated for shoulder surgery with the defined prosthesis.
-



e-ORTHO shoulder is not intended to be used with any device other than those specified in the software. This could lead to undesirable results and it is strictly forbidden by FH ORTHO.



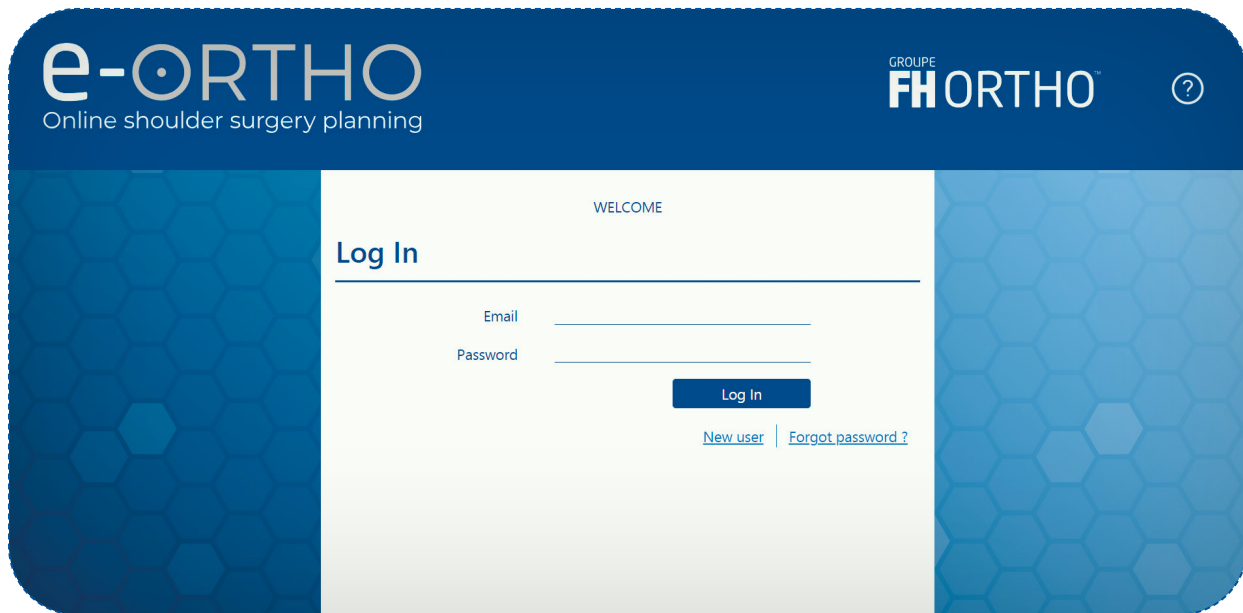
e-ORTHO is provided as a shoulder surgery planning tool for informational purposes only. The chosen procedure is the responsibility of the Surgeon. Prior to any shoulder surgery, the surgeon should evaluate the appropriateness of the procedure to the specific patient based on his/her medical training. Do not use e-ORTHO for clinical diagnostic purposes.



e-ORTHO is a web-based medical software program labelled for use in a standard surgeon's office, hospital or surgeon's home, within a quiet and private environment. e-ORTHO is must not be used in busy or outdoor environments such as a hospital emergency room, train etc.

4. Opening e-ORTHO

e-Ortho shoulder is accessible from the e-ORTHO welcome page at the following URL: <https://e-ortho.fhortho.com>



WELCOME

Log In

Email

Password

[Log In](#)

[New user](#) | [Forgot password ?](#)



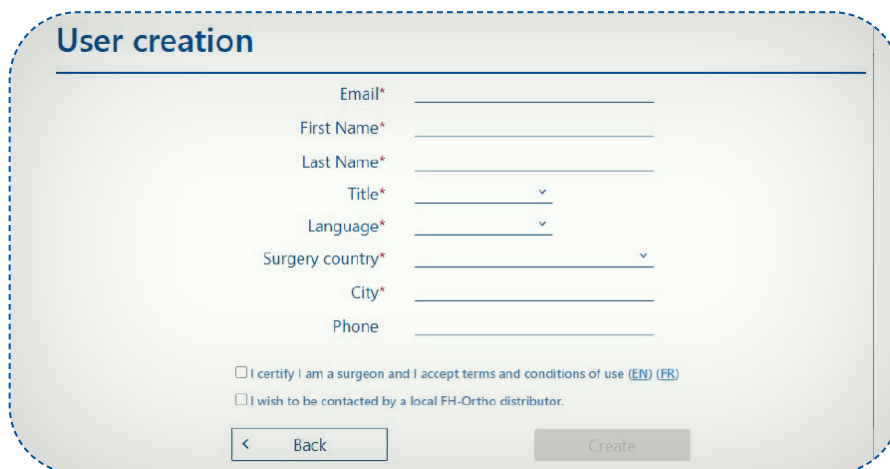
Please make sure that you are using Google Chrome. (For more information on the required system specifications see **Section 10 Configuration système minimum**).

5. Creating an e-ORTHO user account

You can create an e-ORTHO user account by following the next two steps.

5.1. Sending an account request

Go to the e-ORTHO welcome page and click the **New User** button. You will be automatically directed to the **User Creation** page.



User creation

Email*

First Name*

Last Name*

Title*

Language*

Surgery country*

City*

Phone

I certify I am a surgeon and I accept terms and conditions of use [\(EN\)](#) [\(FR\)](#)

I wish to be contacted by a local FH-Ortho distributor.

[Back](#) [Create](#)

Fill in your contact information and then read the terms and conditions of use by clicking on [\(EN\)](#) / [\(FR\)](#) according your language preference.

Please certify that you are an orthopaedic surgeon and agree to our terms and conditions by ticking the white box on the left side of the page.

If you wish to be contacted by a local FH-Ortho representative, please tick the relevant box.

Click on [Create](#) to finish the account request process. Now you can leave e-ORTHO and set your password from your email account.

5.2. Setting your password

A link is automatically sent to your email.



Do not forget to check your spam emails.

Click on the link and you will be automatically directed to the password page (please make sure that you are using Google Chrome) or copy/paste the link in your Google Chrome browser.



This is a personalized link that is valid for two weeks. If your link has expired, you can generate a new one by clicking on [Forgot Password?](#) on the e-ORTHO welcome page.

Change password

Email

Password

Confirm password

Your password must be at least 8 characters long and include at least a letter and a number

Please set a strong password.



Your password must be at least 8 characters long and include at least one letter and one number. e-ORTHO shoulder is a medical device, so please remember that it is strictly forbidden to share your log-in details.

Click on [Validate](#) to finish the set password process. Now you can leave e-Ortho.



You need to wait for our confirmation to use e-Ortho. You will be informed by email when your account is activated by the e-ORTHO team.

6. Planning an FH-Ortho Arrow surgical case

To plan a surgical case using e-ORTHO, you need to follow these three steps:

- Create a patient case (done by the surgeon)
- Prepare the planning input, (e-ORTHO team, “segmentation and landmarks”). Please keep in mind when you create a new case that the preparation process may take at least three business days.
- Perform the surgical planning (surgeon)

6.1. Creating a surgical case

Go to the e-ORTHO welcome page and **Log In** to start e-ORTHO. You will be automatically directed to your patient list page.

Name	Surgery Date	Surgeon	e-Ortho ID	Surgery country	Healthcare institution	Status
Marie Curie	01/05/2021	Doctor Orthopedics	60D340678DA02	France	Paris	CT-Scan uploaded
Albert Einstein	10/01/2022	Doctor Orthopedics	6098E4625EF5C	France	Paris	Planning validated
Marie Curie B2	07/01/2000	Doctor Orthopedics	6094E7609C1B6	France	Paris	Planning validated
Albert Einstein	01/01/2021	Doctor Orthopedics	603E33DB45926	France	Clinique Lyon	Ready for planning
Albert Einstein	01/05/2020	Doctor Orthopedics	5FCA62CA1983A	France	Paris	CT-Scan validated
Marie Curie	01/01/2020	Doctor Orthopedics	5FA92E1FD31CF	France	Paris	CT-Scan validated
Marie Curie	01/05/2021	Doctor Orthopedics	5F216A605BF8A	United States	New York	Ready for planning
Marie Curie	01/05/2021	Doctor Orthopedics	5F213CFAA838A	France	Paris	CT-Scan validated
Albert Einstein	02/05/2021	Doctor Orthopedics	5F158E310B980	France	Paris	CT-Scan validated
Albert Einstein	01/01/2030	Doctor Orthopedics	5EF312465EE98	France	Lyon	CT-Scan validated

Click the **Create a New Patient** button at the bottom left side of your page. You will be automatically directed to the **Create a Patient** page.

You can create a new patient case here by following the next two steps:

- Fill in all the mandatory patient information.
- Upload the CT scan images. (It is possible to fill in only the patient information initially. However, the e-ORTHO team will not be able to start preparing any files until the CT images are uploaded).

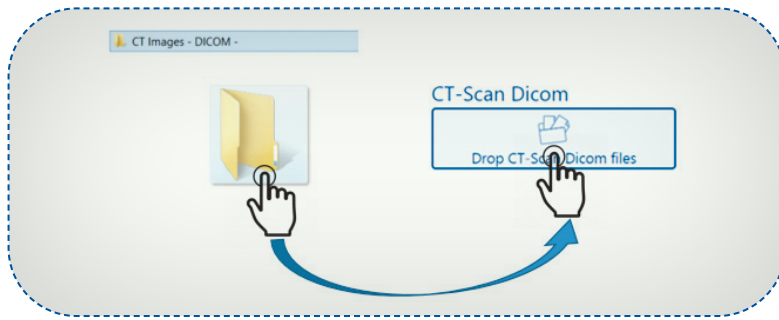
Create New Patient

First Name* _____
Last Name* _____
Gender* _____
Birthdate* / /
Surgery side* _____
Surgery date / /
Walch classification _____
Healthcare*
Institution _____
City* Paris
Surgery country* France
Comments

CT-Scan Dicom

* Mandatory fields

Drag and Drop the CT images file. Hold down the left mouse button on your CT images file and move the mouse across your screen to the designated place on e-ORTHO.

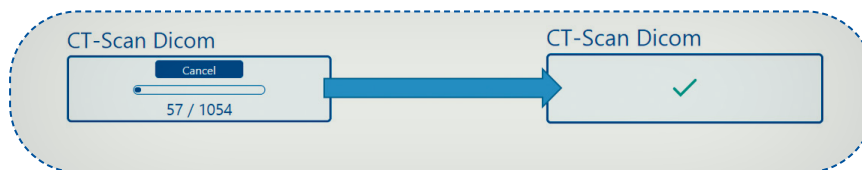


Before submitting an e-ORTHO planning request, you must have fully informed the patient and obtained his/her consent to use the e-ORTHO software during his/her surgery. It is imperative that you have a copy of the FH ORTHO PATIENT INFORMATION LETTER signed by the patient. FH ORTHO may request this. This letter can be found in annex 1 of the General conditions of use, which can be downloaded from <https://e-ortho.fhortho.com>, under the help section [?] then *Instructions d'utilisation (EN) (FR)*. For more information see Section 8 Contact us / help. If your patient wishes to object to his/her data being used by FH ORTHOPEDICS for clinical research purposes, please state this in the “comments” space of the patient planning page.



Make sure that the CT scan images comply with the FH CT scan protocol specifications for e-ORTHO. (For more information about our protocol see Section 8 Contact us / help.)

e-ORTHO will start loading the CT images automatically. Depending on your internet connection and the size of the files, this process may take a few minutes.



Tip: you can start by dragging and dropping the CT images; e-ORTHO will load the images while you fill in the patient's information.



DO NOT close your browser until the upload is finished and **DO NOT** forget to click on the *Submit* button.

Then, you can either leave e-ORTHO or go back to your patient list and keep working on another case.

6.2. How the e-ORTHO team prepare your planning input

The e-ORTHO planning follows these two steps:

Bear in mind that the planning preparation process takes at least three business days.

The e-ORTHO team will review the CT scan images. If the data comply with the e-ORTHO CT scan protocol, the file status will change to **CT Scan validated**. If not, the status will change to **CT Scan unusable** and the e-ORTHO team will contact you to explain the issues and offer a solution.

After this validation step, the e-ORTHO team will carry out 3D reconstruction of the scapula and humerus (segmentation) and positioning of anatomical landmarks based on the CT scan images.

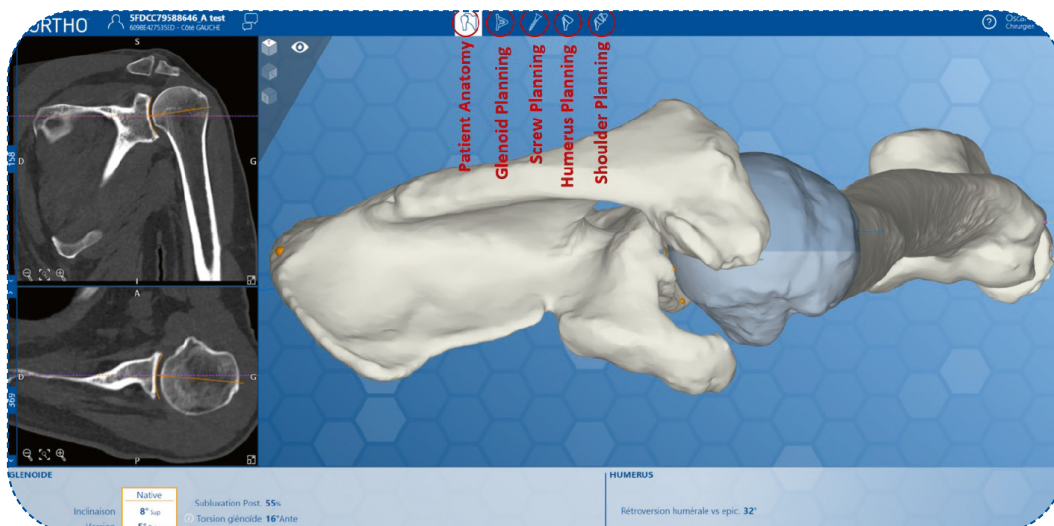
Once the segmentation is complete and the landmarks are positioned, the file status will change to **Ready for planning**. You will be notified by email and you will then be able to plan the surgery.

6.3. Starting a surgical plan

Once you have logged in to e-ORTHO, on your patient list page, select the patient to plan by clicking on the arrow icon linked to them.

Name	Surgery Date	Surgeon	e-ORTHO ID	Patient ID	Status
Nes CAR		Jose L. Jones	5C8F587604874		Ready for planning
Test US		Jose L. Jones	5C87CA89D63CF		Planning validated
test europe		Jose L. Jones	5C87C6C5CBA73		Planning validated
Ma Du P		Jose L. Jones	5C86991F1E15F		Planning validated
Sthephanie E. Fuller		Jose L. Jones	5C8630908D32E	6751	Planning validated
PAO CAT		Jose L. Jones	5C8273F1C9CFC	USA	Planning validated
PAT CAO		Jose L. Jones	5C82713EB5858		Planning validated
Jean-paul Belmondo		Jose L. Jones	5C82421C24057		Created
Austin T. Wright		Jose L. Jones	5C70420446513		Created
Cindy J. Hunger		Jose L. Jones	5C7041E079FDE		Created

You will be automatically directed to the e-ORTHO planning pages. The e-ORTHO surgical planning is composed of **five** planning pages: **Patient Anatomy**, **Glenoid Planning** and **Screw Planning**, **Humerus Planning**, **Shoulder Planning**. At any time, you can navigate between the pages by clicking on the corresponding icon. However, it is highly recommended that you plan by following the order presented in this guideline.



Please note that in some cases, one or more pages may not be accessible.

e.g.:

When planning a cemented glenoid implant, the screw page may not be accessible.

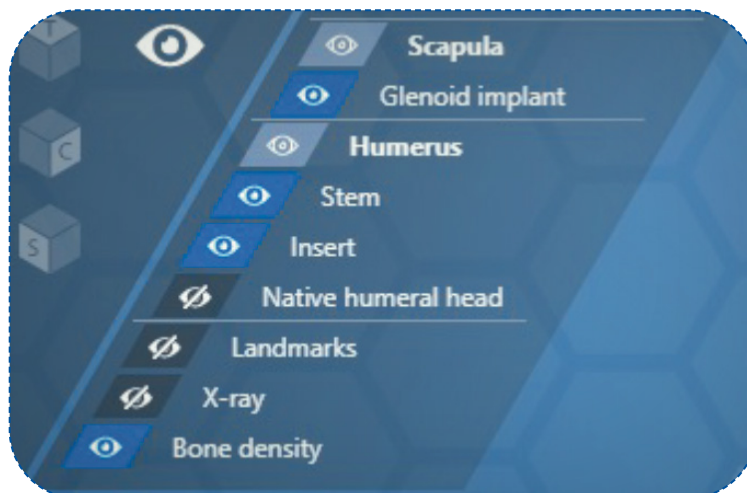
If the patient has a fractured humerus, the Humerus Planning page will not be accessible.

To validate a plan you must review every page through to the last one.

6.4. Global user interfaces

6.4.1. Show/hide Objects

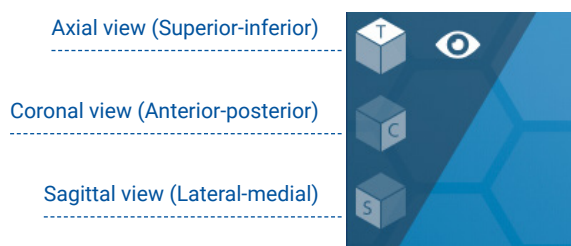
By clicking on the eye icon you can collapse / expand the display bar menu options. This menu may change depending on the planning page or on the step that you are in.



6.4.2. Changing the orientation of the 3D model

• 3D user interfaces:

You can change the camera orientation by clicking on one of the corresponding icons.

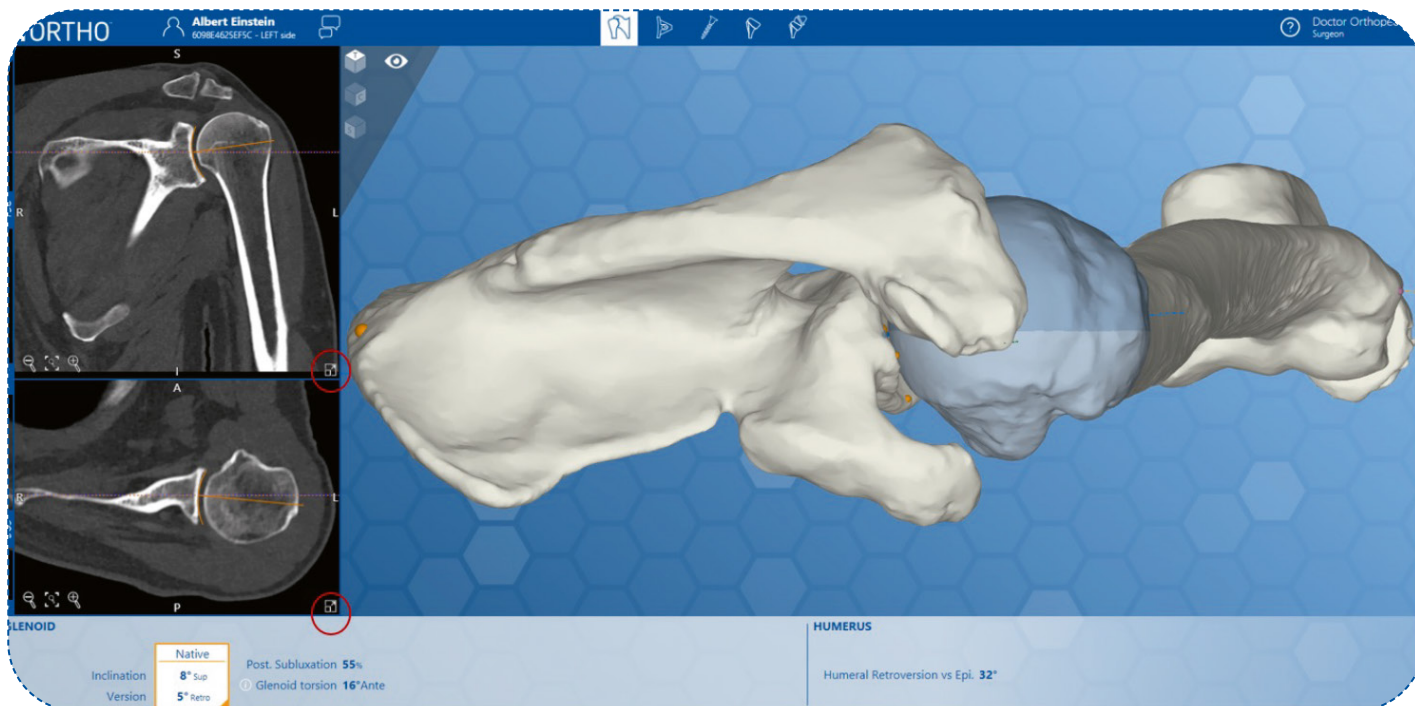


Alternatively, you can use your mouse to rotate, move or zoom in/out of the 3D model. To do this, place the mouse cursor on the 3D model.

TASK	ACTION	ELEMENT
Rotation	Hold the left mouse button down and move the mouse in the desired direction.	
Translation	Hold the right mouse button down and move the mouse in the desired direction.	
Zoom	Use the scroll wheel to zoom in or out in the 3D model.	

6.4.3. Working with the CT Image

You can expand the coronal and axial views by clicking on the expand view icon to move the chosen view to the main window. The 3D view will then replace it in the smaller window.

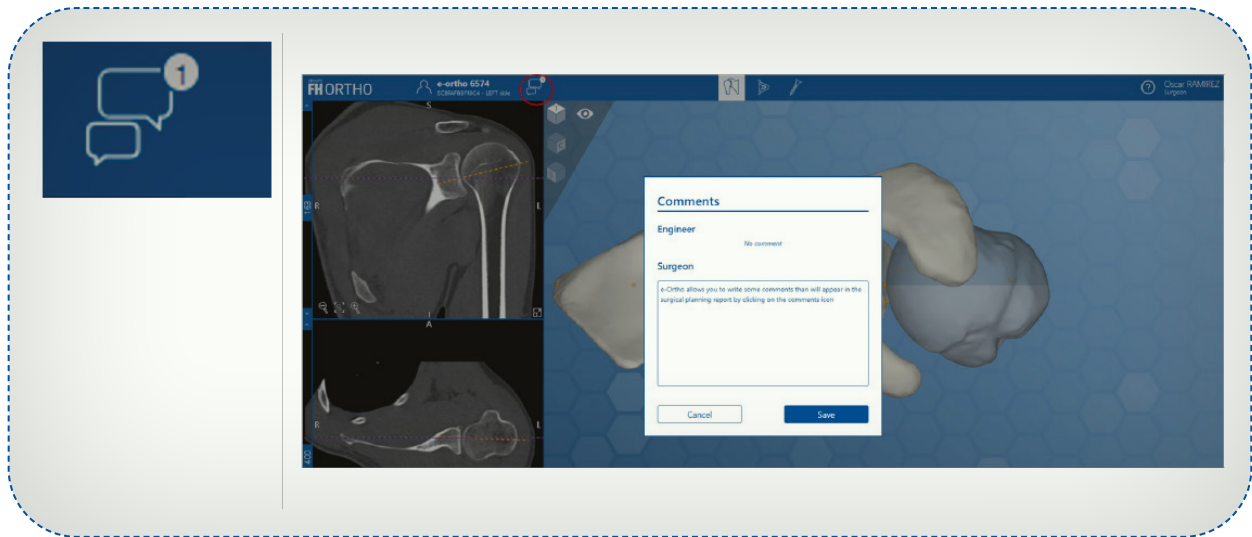


• 2D user interfaces

TASK	ACTION	ELEMENT
Expand	Click on the expand icon to send the view to the main window.	
Zoom	Zooming in/out can be achieved by using the zoom control. To reset the default view position, click on the framed magnifying glass in the centre of the zoom control.	
Move	Hold down the right or left mouse button on CT Image view and move the mouse to the desired position.	
Navigate Between Slices	Scroll up and down to change the image number in the desired direction. Alternatively, by holding down the right or left mouse button on the blue slider and moving the mouse in the desired direction, you will be able to also change the image.	

6.4.4. Comments

e-ORTHO allows you to note down comments that will appear in the surgical planning report by clicking on the comments icon.



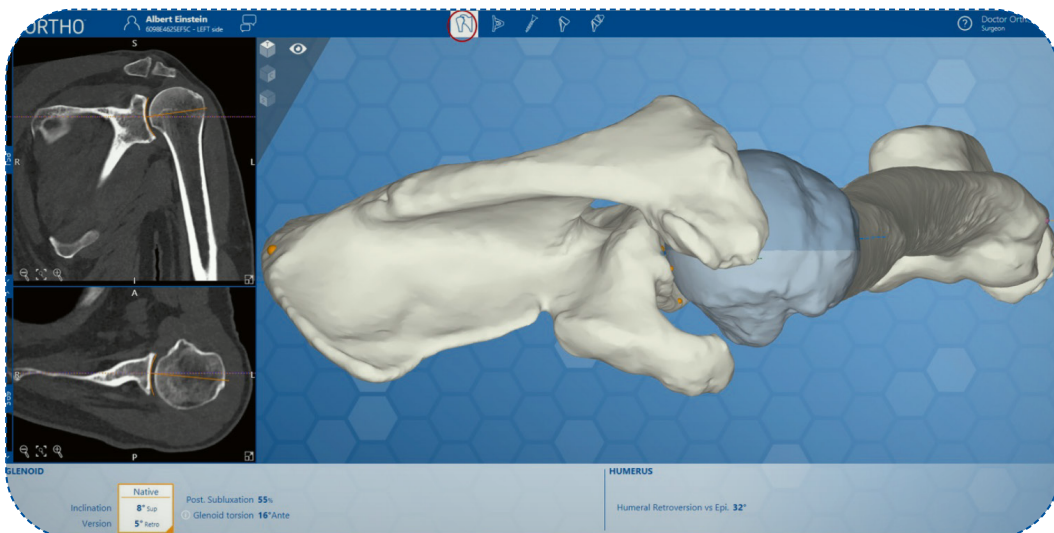
In addition, this window may contain some messages from one of our engineers. However, the engineer's message is provided exclusively for the surgeon's information. Therefore, the engineer's message is not shown in the surgical report.



Please note that a '1' will appear on the message icon if any comment is available

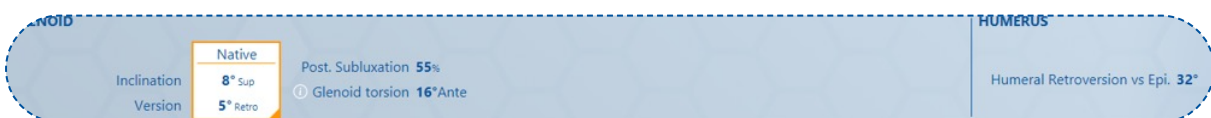
6.5. Patient anatomy page

This page enables you to understand your patient anatomy prior to the surgical plan.



6.5.1. Patient native anatomy parameters

The *Native Version*, *Native Inclination (Tilt)*, *Glenoid Torsion*, *Posterior Subluxation* and *Humeral Retroversion* (if applicable) values can be seen in the bar at the bottom of the window.



6.5.2. Confirmation of 2D (axial and coronal)/3D parameters

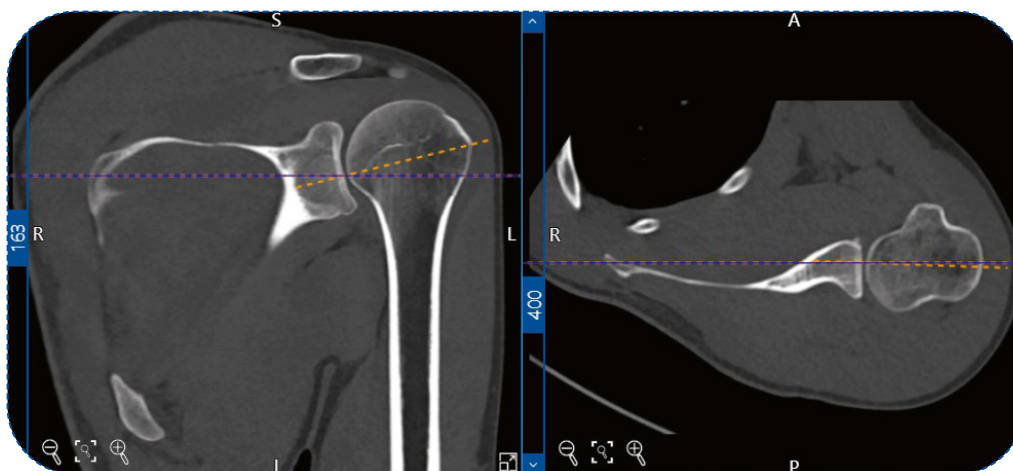
e-ORTHO allows you to view the calculated values for *Native Version*, *Native Inclination (Tilt)* and *Posterior Subluxation* in 2D and 3D by superimposing the axes on the image of the patient's anatomy.



Make sure that you activate the 'Landmarks' option in the view menu. See Section 6.4.1 Show / Hide objects.

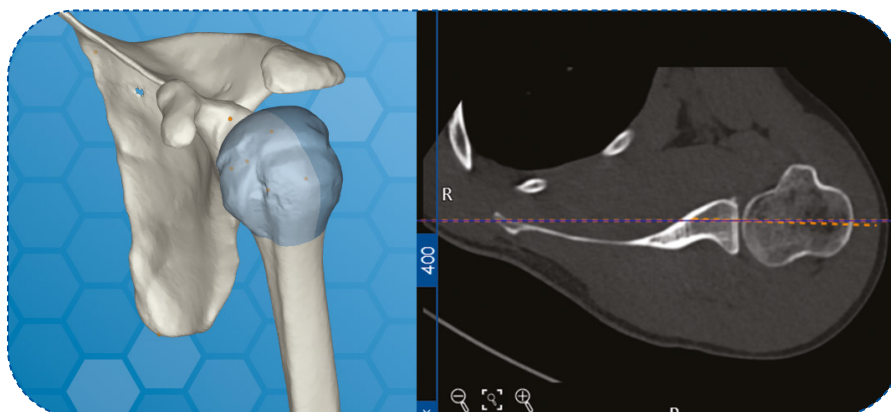
• 2D visualization of Native Version/Inclination

The *Native Version* and *Native Inclination* are indicated by two lines on the CT images view (orange line for native version and inclination, and blue line for neutral version and inclination). It is possible to navigate between the slices as well.



• 2D and 3D visualization of Subluxation

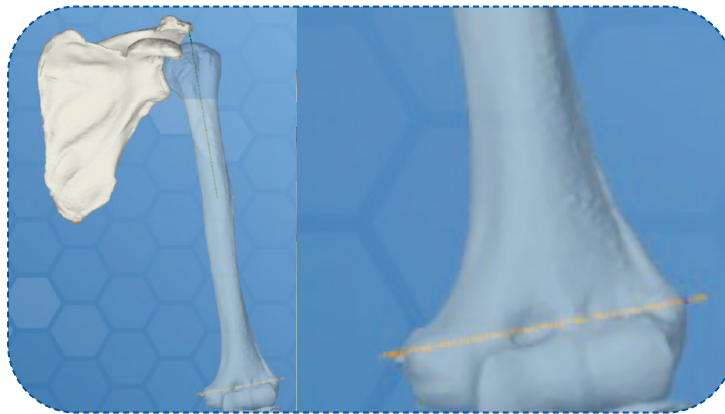
The humeral *Subluxation* is the percentage of humeral head offset from the scapular plane, relative to the humeral head diameter. This is indicated in 2D by the scapular plane line (blue) and in 3D by the two shades in the humeral head.



• 3D visualization of Humeral retroversion (if applicable)

Humeral retroversion is the angle between the central axis of the humeral head and the transepicondylar axis of the elbow.

The latter is shown in 3D by the orange line over the 3D view.

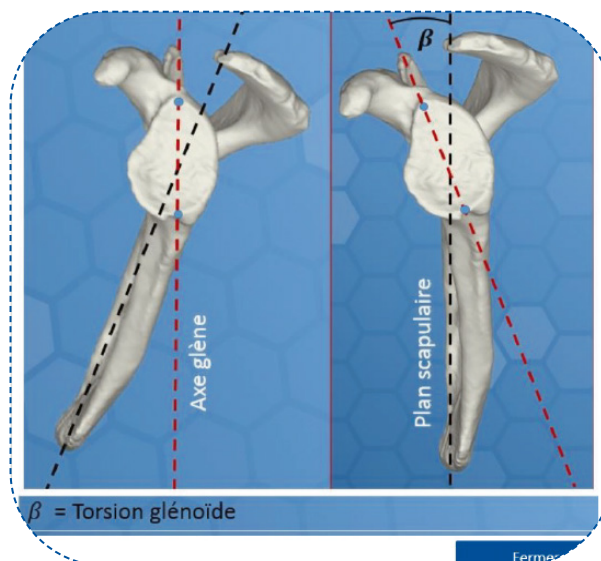


• 3D visualisation of Glenoid torsion

Glenoid torsion is the angle between the scapular plane and the glenoid plane (superior-inferior axis of the glenoid).



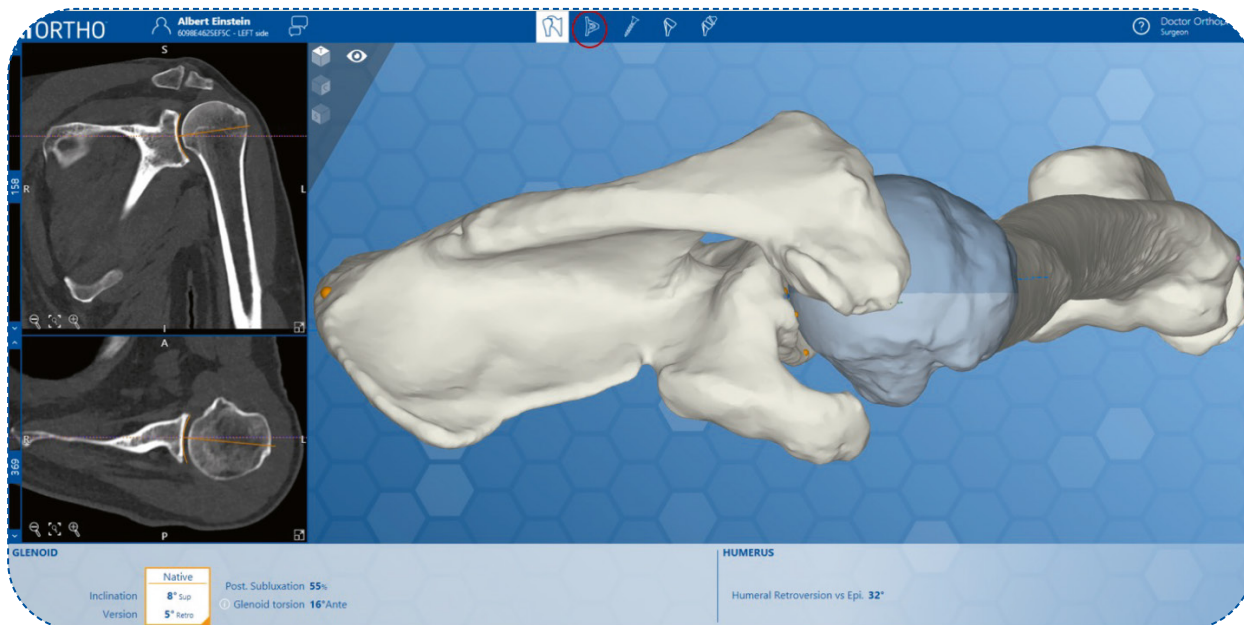
For more information about this definition, click on the help button to the right of the *Glenoid torsion* display.



For more information about the definition of patient native anatomy parameters, contact our support team.

6.6. Glenoid planning page

This page enables you to plan the glenoid component. e-ORTHO provides you the following control panel in order to adjust the implant to each patient's morphology as accurately as possible.



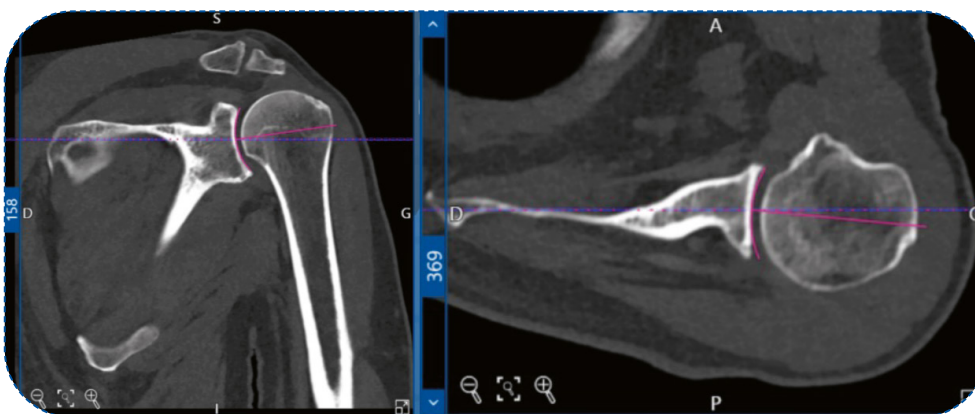
A. Setting the implant type

On the left side you can set the glenoid implant type, the glenoid size, the keel option (if applicable) and the desired glenosphere size (if applicable).

B. Relative Version and Relative Inclination (Tilt) parameters

The values for *Relative Version* and *Relative Inclination* can be viewed in the bar at the bottom of the window.

Relative Version and *Relative Inclination* are indicated by lines marked on the CT image views. It is also possible to navigate between the different slices.



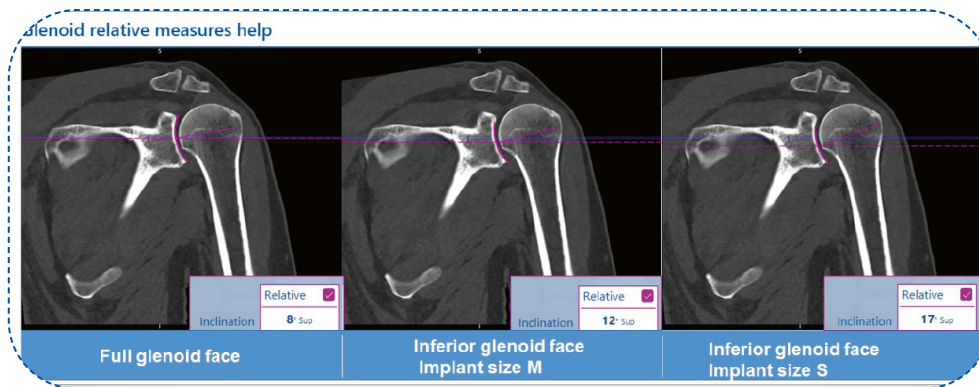
Relative Version and *Relative Inclination* Vs *Native Version* and *Native Inclination*

Relative Version and *Relative Inclination* are measured taking into account the contact surface between the implant and the glenoid.

Native Version and *Native Inclination* are measured taking into account the entire glenoid fossa



For more information about this definition, click on the help button on the right of the *Relative Version* and *Relative Inclination* (Tilt) display.



For more information about the definition of patient native anatomy parameters, contact our support team.

C. Changing the implant version and inclination

To set the implant version and/or the implant inclination, you need to use the **+0 +10 +20** buttons at the bottom of the main view. Movements are made in increments of **+ 10°** in line with our drilling guide used to implant the glenoid component.



With free mode activated

To set the implant version and inclination, you need to use the correction button, which is found at the bottom of the main window. The positions of the implant are corrected in increments of **1°**.

D. Changing implant roll and the lateral-medial implant position (reaming)

- To roll the implant in anterior-posterior directions, you need to use the arrows buttons at the bottom of the main view. Movements are made in increments of **± 1°**.
Alternatively, it is possible to modify the roll by holding down the left mouse button on the seating view and moving the mouse in the desired rotation as well.
- To move the implant in lateral-medial directions, and ream the glenoid surface, you can use the **(+) (-)** button at the bottom of the main view. Movements are made in increments of **± 1mm** from the glenoid entry point.

Alternatively, you can scroll up and down on the seating view to modify the lateral-medial position as well.

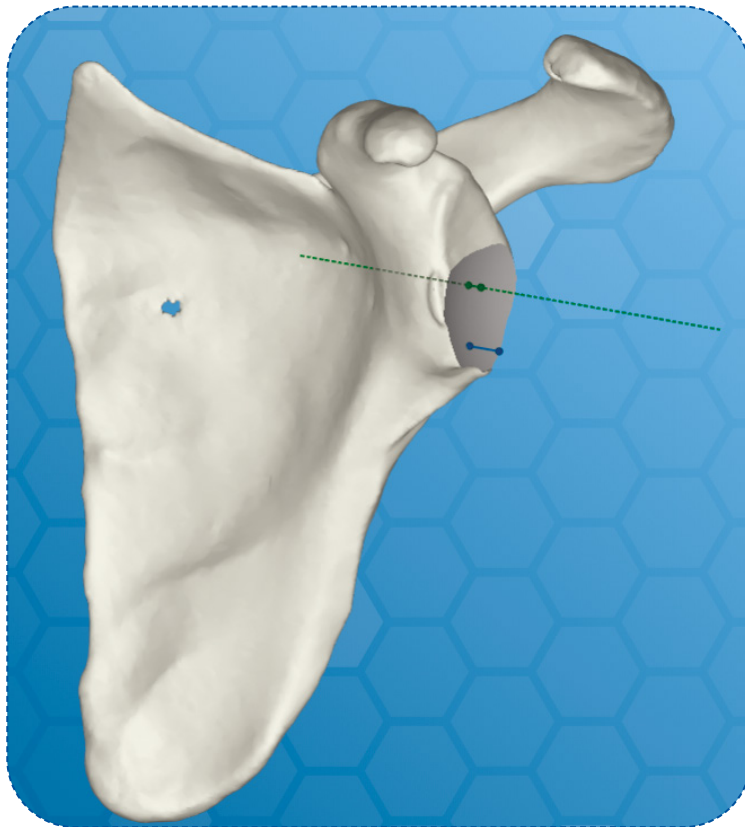
E. Changing the anterior-superior and or inferior-superior implant position

To move the implant in superior-inferior and/or anterior-posterior directions, you can use the arrow buttons at the top of the seating view. Movements are made in increments of **± 1 mm**.

F. Parameters calculated automatically

- **Central reaming:** This is the value representing the reaming at the entry point (green line).
- **Maximum reaming:** This value represents the maximum reaming found on the glenoid surface (blue line).

These values are calculated and displayed in real time as you reposition the implant.



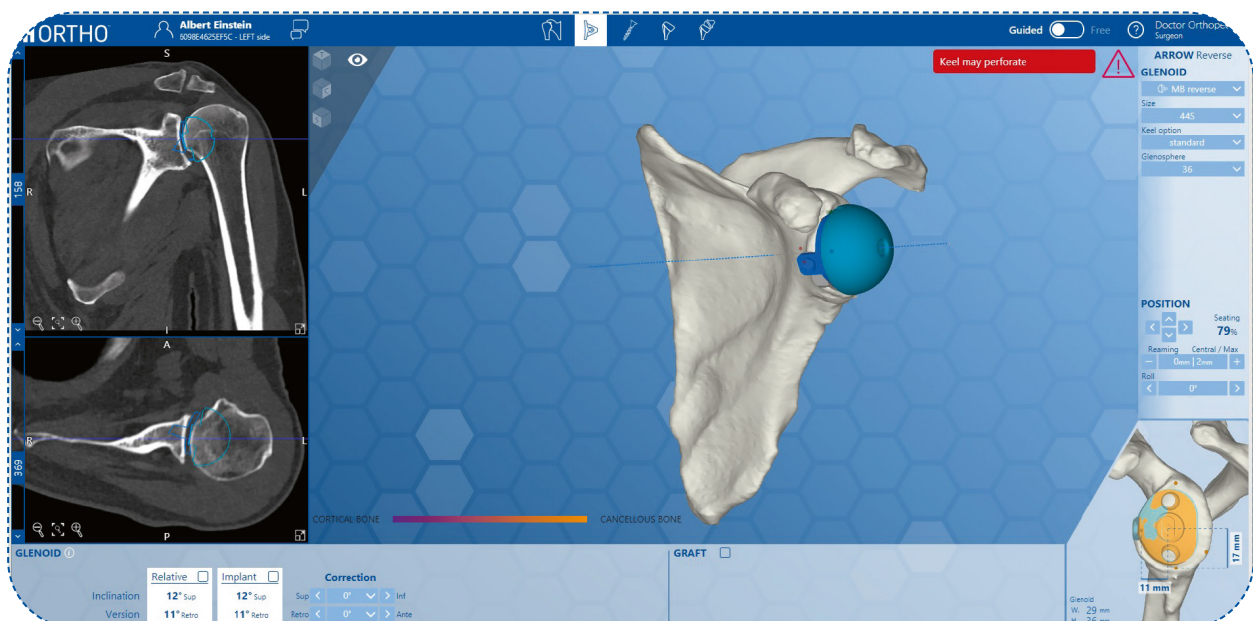
NOTE: If you have planned the humeral component and you return to the Glenoid planning page, the lateral and distal offset values will be displayed below the main window. (For more information see Affichage des valeurs cliniques).

6.6.1. Glenoid warnings

A glenoid warning is generated whenever e-ORTHO detects that the glenoid implant may perforate the internal cortical bone. The Glenoid warnings are displayed on the top right side of the page.

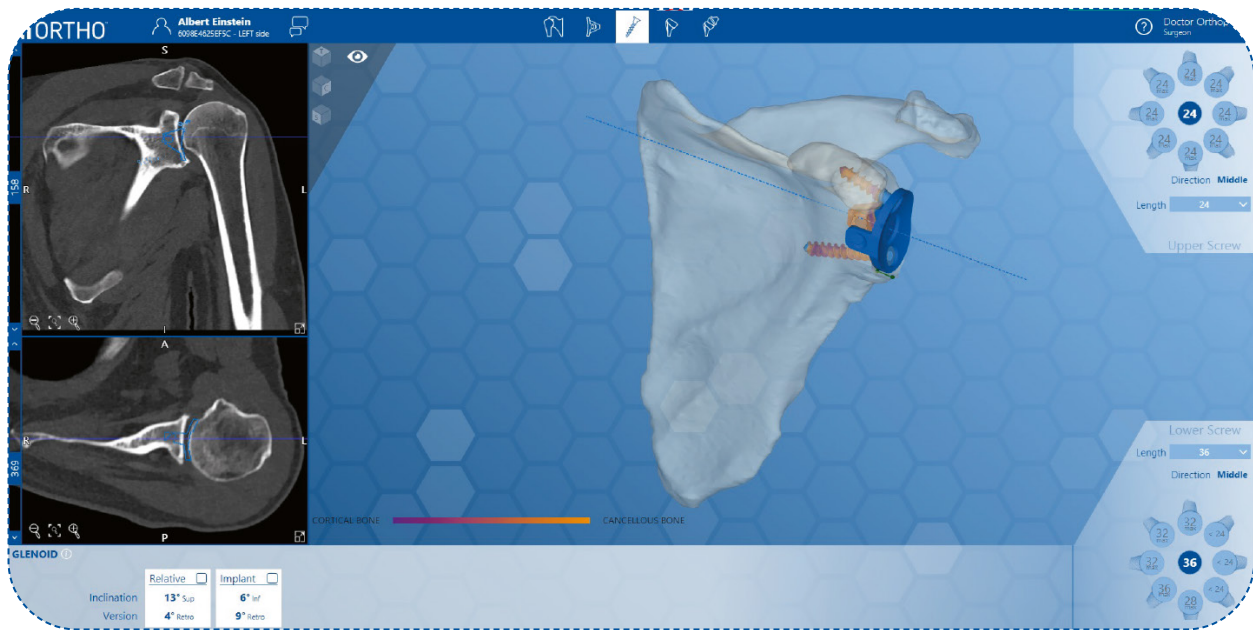


The keel may perforate (Metal Back) / The peg may perforate (Full PE cemented).



6.7. Screws planning page

This page enables you to plan the screw length and position. By default, the recommended screw lengths and positions will be automatically calculated and applied by e-ORTHO.



Nevertheless, you can increase/decrease the screw lengths or change the screw positions based on your preferences. In this case, e-ORTHO may display a warning ([see page 28 - Screw warnings](#)).



You can still navigate between the glenoid and screw planning pages as you need. If you change any glenoid implant parameters, the recommended screw length/position will be automatically recalculated and the value will be displayed. However, e-ORTHO will not change your chosen screw parameters (length or orientation) even if the implant position has been adjusted. To choose the e-ORTHO recommended screw lengths/orientation suited to your new implant parameters, you need do it manually.

6.7.1. Screw warnings

A Screw warning is generated whenever e-ORTHO detects that the screw position and/or size is not optimal. The screw warnings are displayed on the top right side of the page.



The screw may perforate:

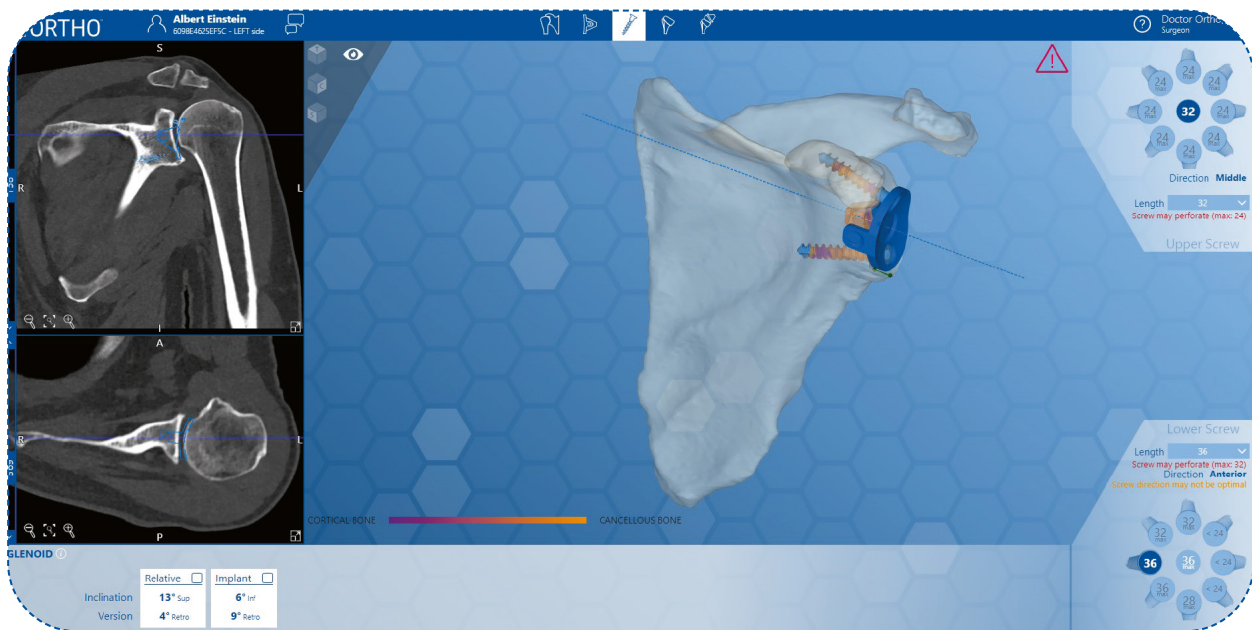
Warning generated whenever the screw may perforate the cortical bone by more than 2 mm.

The screw direction is not optimal:

Warning generated whenever you choose a screw position that e-ORTHO does not consider to be optimal.

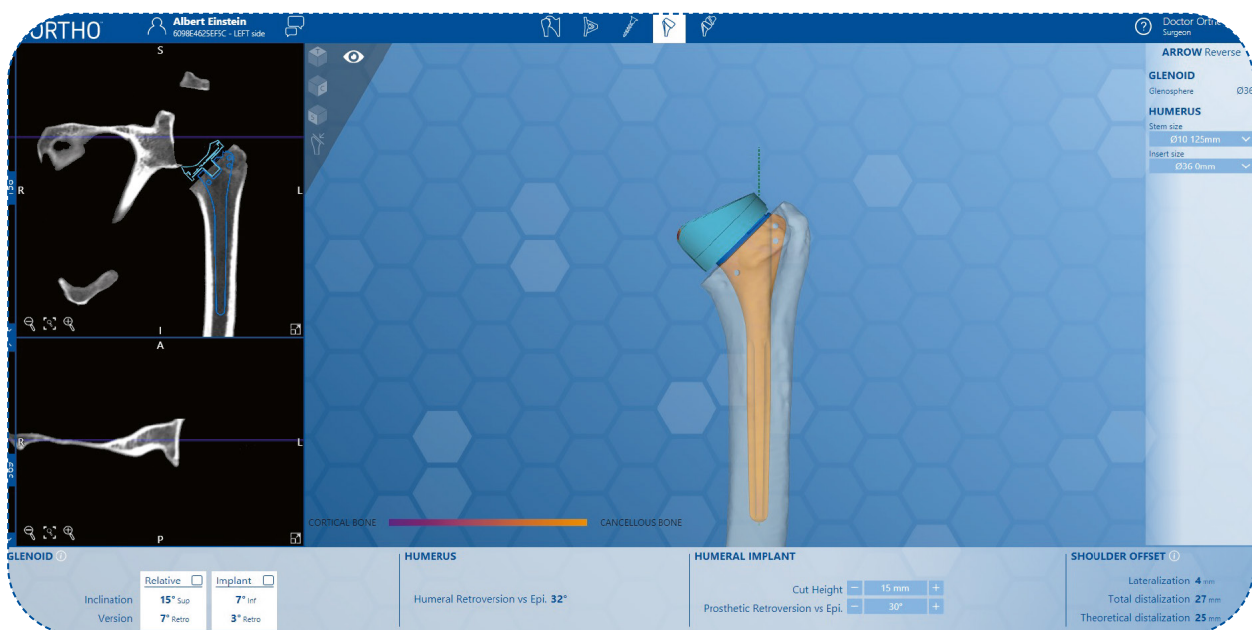
The screw length is not optimal:

Warning generated whenever you choose a screw length that e-ORTHO does not consider to be optimal.



6.8. Humeral planning page

This page enables you to plan the positioning of the humeral implant. You can use the following control panels in e-ORTHO to adjust the implant position for each patient.



G. Choosing the implant type

On the right side, you can choose:

- Size of the humeral stem
- Size of the humeral head
- Centred humeral head
- Off-centred humeral head
- Size of the humeral liner

H. Changing version for an off-centred humeral head

To set the version of an off-centred humeral head, you need to use the “**off-centred humeral head** version” (+) (-) buttons, which are found at the right of the main window. The positioning may be in retroversion 180° or anteversion 180°.

I. Changing the height of the humeral section

To set the **height of the humeral section**, you will need to use the “humeral section” (+) (-) buttons, which are found below the main view.

J. Changing humeral implant retroversion

To set **humeral implant retroversion**, you will need to use the “**humeral implant retroversion**” (+) (-) buttons, which are found below the main view.

K. Display of clinical values « Humeral planning page »

The clinical values and the position of the glenoid and humeral implants are shown below the main view

- Humerus
 - Shoulder lateral offset
 - Native distal offset
 - Distal offset from the centre of the glenoid
- Glenoid
 - Relative inclination
 - Relative version
 - Implant inclination
 - Implant version



For more information on this definition, click on the help button to the right of the *Humeral offset* panel.



For more information about the definition of patient native anatomy parameters, contact our support team.

6.9. Shoulder planning page

This page allows you to reposition the humeral implant, taking the entire joint into account.



6.10. Validating the surgical plan

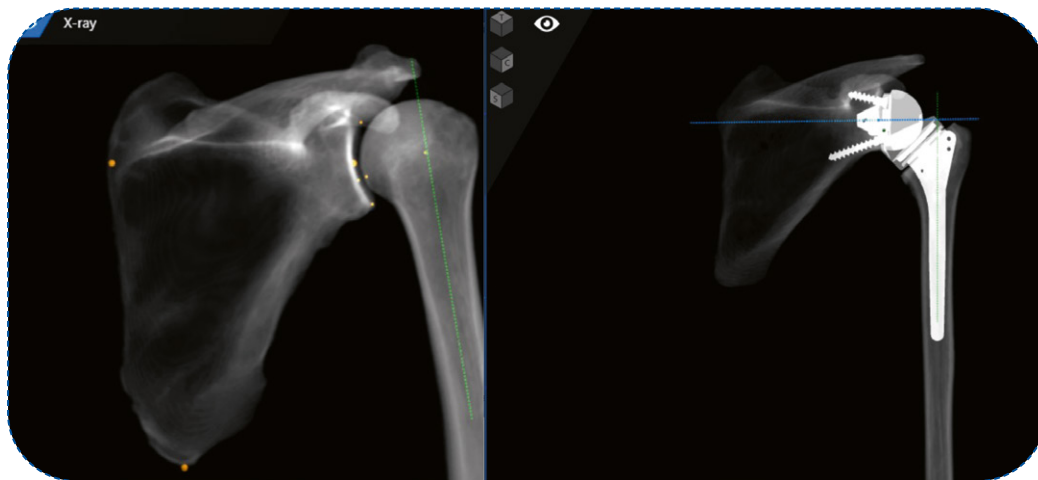
Once the plan is ready, validate it and create the planning report by clicking on the **Validate** button. e-ORTHO will then generate a pdf of the surgical planning report, including any warnings that require your attention.

6.11. Visualisation mode X-Ray

The 3D views in e-ORTHO can be shown in “X-Ray preview” mode for all pages:

- Patient Anatomy
- Glenoid Planning
- Screw Planning
- Humerus Planning.
- Shoulder Planning

To use this function you need to use the X-Ray button under the “eye” icon at the top right.

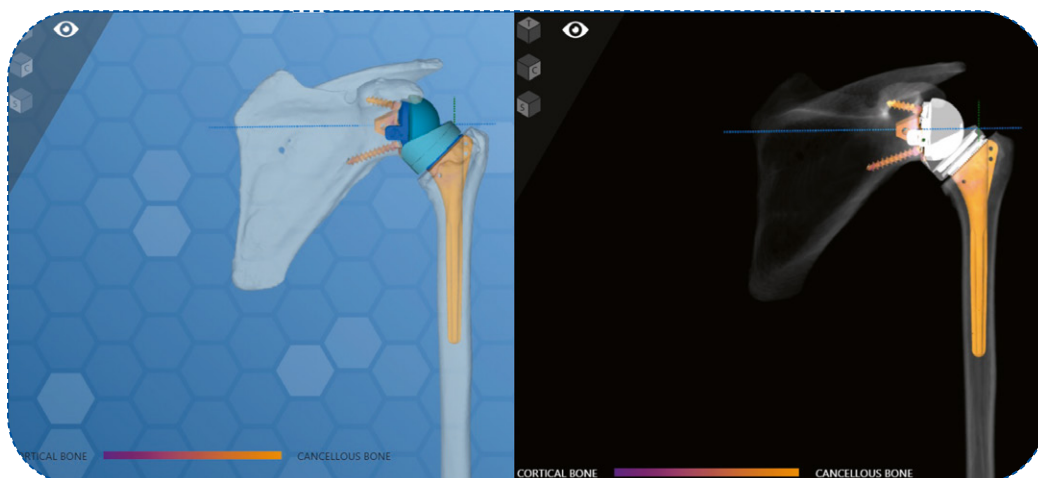


6.12. Visualization of bone density

The 3D views in e-ORTHO can be shown in “bone density preview” mode for the following pages: glenoid page, Screw page, reduced joint page.

To use this function you need to click on the “bone density” button under the “eye” icon at the top right.

This preview can be used alone or combined with the X-Ray preview function.



6.13. Managing cases of B2 (biconcave glenoid)

If a biconcave glenoid is detected, e-ORTHO will allow you to choose which surface you wish to perform the correction on (Paleoglenoid or Neoglenoid).

To use this function you need to click on the B2 button.

Caution: This button will only be displayed if a bi-concave glenoid has been detected.



Then, you need to choose which surface to correct, (Paleoglenoid or Neoglenoid),

Paleoglenoid	Neoglenoid
<p>The Relative Version and Relative Inclination of the chosen surface are indicated by lines on the CT image views. It is also possible to navigate between the different slices.</p>	
A blue rounded rectangular button with a dashed border. It contains the "B2" button with a question mark icon and a toggle switch. Below it are two more toggle switches: "Paleo" (turned on) and "Neo" (turned off).	A blue rounded rectangular button with a dashed border. It contains the "B2" button with a question mark icon and a toggle switch. Below it are two more toggle switches: "Paleo" (turned off) and "Neo" (turned on).



For more information about this definition, click on the help button on the right of the B2 display.

Help Biconcave (B2) glenoid

A screenshot of the software's help interface for the B2 glenoid correction. It shows three stacked CT slices of a shoulder joint. Each slice has a white line indicating the glenoid's orientation. To the right of each slice is a data box with a "Relative" checkbox (checked) and a "Version" value: 35° Retro for the top slice, 21° Retro for the middle slice, and 44° Retro for the bottom slice.

Relative glenoid version
Version 35° Retro
Relative Paleoglenoid version
Version 21° Retro
Relative Neoglenoid version
Version 44° Retro

6.14. Surgical planning report





Example of an e-ORTHO surgical planning report:

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Patient Albert Einstein	Surgeon Dr. Doctor Orthopedics
ID 6098E4625EF5C	Surgery date Jan 10, 2022
Birthdate Jan 28, 1949	Healthcare institution Paris
Gender Male	Surgery country France
Surgery side Left	Validated on Sep 14, 2021
Native Inclination 8° Sup	3:48 PM Europe/Paris
Native version 5° Retro	
Post. subluxation 55%	

Glenoid prosthesis	Screws	
ARROW - REVERSE	Upper screw	Lower screw
Glenoid type Metal Back	Size 24mm / Ø: 5mm	Size 36mm / Ø: 5mm
Glenoid size 445 STD	Direction Middle	Direction Anterior
Glenosphere 36		

Glenoid guide (guided mode)		
Inclination 20°	Version 10°	Guide setting 13mm
Guide: Left side		

Graft	
	 Max thickness 6mm
	 Height 20mm
	Width 24mm

This guideline is provided for informational purposes only. Surgeons should evaluate the appropriateness of the procedure to the specific patient based on his/her medical training. Only for surgical purposes in France. Software version 1.1.2397

1/4

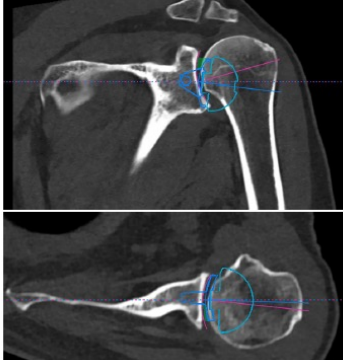
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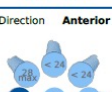
Patient Albert Einstein	Surgeon Dr. Doctor Orthopedi...
ID 6098E4625EF5C	Surgery date Jan 10, 2022
Surgery side Left	Validated on Sep 14, 2021
	3:48 PM Europe/Paris

Glenoid Torsion 0°	No warning
Waich classification B2	

Glenoid planning		
Entry Point	Reaming depth	Seating 55%
Ant 13mm	Central 1mm	
Inf 15mm	Max 7mm	

Inclination 16° Sup	Relative	Implant	Correction
Version 6° Retro	6° Inf	2° Retro	20° Inf
			10° Ante



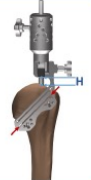
Upper screw	
Direction Middle	
Lower screw	
Direction Anterior	




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2/4

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Patient Albert Einstein	Surgeon Dr. Doctor Orthopedi...
ID 6098E4625EF5C	Surgery date Jan 10, 2022
Surgery side Left	Validated on Sep 14, 2021
	3:48 PM Europe/Paris

Humeral prosthesis	Humeral guide
ARROW - REVERSE	Guide Height / H: 7 mm
Stem type Stem	Prosthetic Retroversion vs elbow epic. 30°
Stem size Ø 10mm - 125mm	Humeral Retroversion vs elbow epic. 32°
Insert size Ø 36mm - 0mm	
Insert type Center	

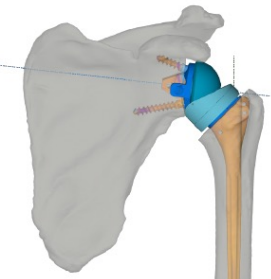
Humeral planning	
Humeral cut height 15mm	
	
	Lateralization 4mm
	Total humerus distalization 27mm
	Theoretical humerus distalization 25mm

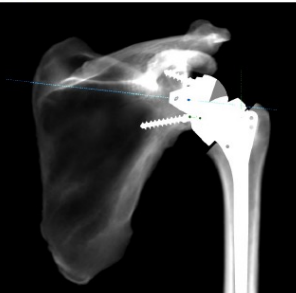
This guideline is provided for informational purposes only. Surgeons should evaluate the appropriateness of the procedure to the specific patient based on his/her medical training. Only for surgical purposes in France. Software version 1.1.2397

3/4

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e-ORTHO
Online shoulder surgery planning

Patient Albert Einstein	ID 6098E4625EF5C	Surgery side Left	Surgeon Dr. Doctor Orthop...
			Surgery date Jan 10, 2022
			Validated on Sep 14, 2021
			3:48 PM Europe/Paris





This guideline is provided for informational purposes only. Surgeons should evaluate the appropriateness of the procedure to the specific patient based on his/her medical training. Only for surgical purposes in France. Software version 1.1.2397

4/4




7. Managing your cases

Once you have logged in to e-ORTHO, you will be automatically directed to your patient list page.

All your cases will be shown on this page, and each page contains between 1 and 10 patient cases. By default, upcoming cases or the cases that require your attention most urgently are displayed at the top.

e-ORTHO will warn you about the cases that require your attention such as:

- A case awaiting the segmentation file for more than 5 days,
- A case awaiting CT Images for more than 5 days (in this case you will be notified by email),
- A case awaiting planning validation if the surgery date is less than one day away.


Name	Surgery Date	Surgeon	e-ORTHO ID	Patient	Waiting for planning
 Y VAR	26/03/2019	Oscar RAMIREZ	5C991031BE04B		  Ready for planning 
 MIC LEO	01/04/2019	Oscar RAMIREZ	5C98CB55839B8		  CT-Scan validated

You can also find your patients by status and warnings using the filter tool at the top-middle or by patient information using the search tool at the top.

Patients list

A

B

Patient ID, Name... 

[Reset filters](#)

Filters : None

Status :

- Created
- CT-Scan unusable
- Ready for planning

Warnings :

- CT-Scan uploaded
- CT-Scan validated
- Planning validated
- Waiting for CT-Scan Dicom
- Waiting for segmentation files
- Waiting for planning

7.1. E-mail notifications

e-ORTHO notifies you by email in the following cases:

- You are notified by email if the CT Scan is rejected (does not comply with protocol, unusable etc.).
- You are notified by email if the patient case is ready for planning

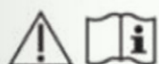
8. Contact/Help

If you require any further information, you can visit our help page and download all our useful information and also our contact information. Do not hesitate to contact us. You can access this page from anywhere in e-ORTHO.

Help

Support

e-ortho@fh-industrie.com



Caution, consult accompanying documents

Instructions for use [\(EN\)](#) [\(FR\)](#)

Terms and conditions of use [\(EN\)](#) [\(FR\)](#)

Scan protocol [\(EN\)](#) [\(FR\)](#)

[e-Ortho tutorials](#)

Rx only

CAUTION: Federal law restricts this device to sale by or on the order of a physician.



271627 e-ORTHO SHOULDER

Version 1.1.1.2405

January 18, 2022



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contact@fh-industrie.com / www.fhortho.com

9. Troubleshooting

I cannot log in

- Double-check your log-in details (email and password).
- Check your internet connection.

I don't know the surgery date yet

- Entering the surgery date is not mandatory. You can also estimate a possible surgery date, which can be changed any time.

I need to change the account preferences

- Go to the "my account" page and select the case that requires a change. (Access is possible for your patient list).

My account modification

Email*	<input type="text" value="e-ortho@fh-industrie.com"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>
First Name*	<input type="text" value="Doctor"/>
Last Name*	<input type="text" value="Orthopedics"/>
Title*	<input type="text" value="Dr."/> ▾
Language*	<input type="text" value="English"/> ▾
Surgery country*	<input type="text" value="France"/> ▾
City*	<input type="text" value="Paris"/>
Phone	<input type="text"/>

Your password must be at least 8 characters long and include at least a letter and a number.

If password fields are empty, the password will not be updated.

I wish to be contacted by a local FH-Ortho distributor.

I forgot my password

- Go to the e-ORTHO welcome page, click on Forgot Password? at the bottom of the page and follow the change password process.

My account is not valid anymore

- Contact e-ORTHO support.

e-ORTHO is not working anymore

- Check you are connected to the internet.
- Press "F5".

I cannot find a patient case

- Check you are connected to the internet
- Press the "F5" button on your keyboard.

Not all my cases are shown in the case list

- Check whether your text search and status filter are empty.

I cannot see the 3D model or 2D bone view

- Try changing the zoom. (See page 6.4.2 - Changing the orientation of the 3D model and/or page 18 - Working with the CT Image).

I have a problem with the display (e.g. Problem with preview, image freezes when zooming, etc.)

- Close your web browser and reopen your case.

10. Minimum System Requirements

The following operating systems are supported

- Operating System

- MAC OS 10.13 or higher.
- Windows 8 or higher.

**The use of a Three-button optical mouse with scroll wheel is highly recommended*

- Screen Resolution

- Mini 1366x768px.
- Maxi 2400x1200px .

**You can adjust your window size using the full screen mode (F11) and/or zoom in/out (ctrl +/-).*

- Browser

- Google Chrome V72 or higher.

Google Chrome can be download it from the following URL: <https://www.google.com/chrome/>

- Internet

- A stable broadband Internet connection is required
- 1.5 Mbit/s internet connection or higher is highly recommended
- Other connections such as 4G could be used to plan surgery. Nevertheless, this type of connection is not recommended for uploading files such as DICOM files.

**Every time that you connect to the system, e-ORTHO checks if your system is well supported and if any problems are detected, a pop-up window will display the issues and offer you a possible solution.*

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