

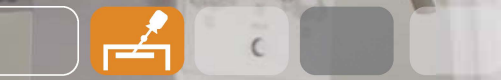
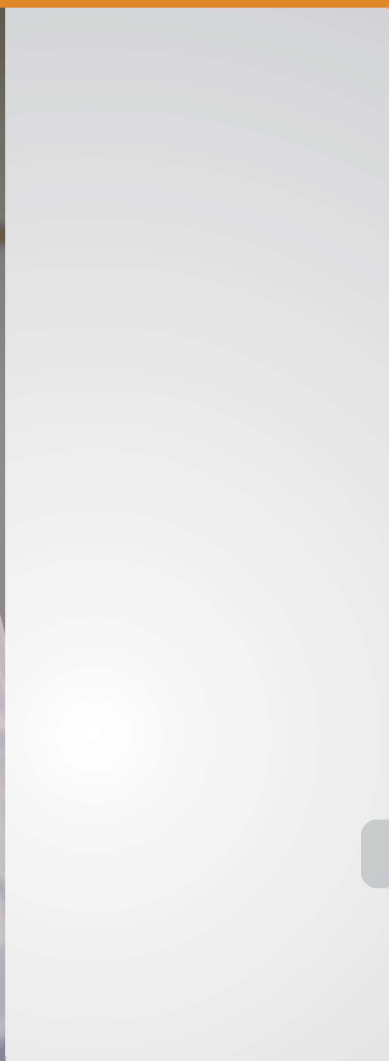


Amadeo R Systems

Digital radiography
with **Amadeo R** including bucky
table and wall stand as a dual
detector or wireless system



Amadeo complete X-ray system for digital X-ray imaging





Amadeo R Systems

Universal X-ray system with bucky table and wall stand - ideal for small rooms

Today, every radiology practice has to operate efficiently and economically, creating a need for high performance digital systems. The introduction or upgrading of digital technology offers unique opportunities to streamline the workflow in clinics and practices as well as to operate profitably - including perfect image quality.

The **Amadeo R** is a universal X-ray system with bucky table and wall stand. Due to its compact design it can be installed in the most confined spaces. Since it is easy to operate, radiographers can quickly familiarise themselves with the system.

The X-ray tube assembly and the bucky tray of the wall stand can be lowered all the way down to the ground. The large floating table top has a high bearing capacity so that even large patients can be examined without any problem. A shorter table top is available for confined spaces.

The **dicomPACS® DX-R** operating console controls the entire X-ray system: from operating the X-ray generator to the finished superb quality image for diagnostic evaluation. All necessary settings are keyed into a single control panel. In addition, the integrated multimedia X-ray positioning guide offers advice on the correct adjustment technique and the positioning of the patient.

Benefits

Digital X-ray imaging with **Amadeo R** systems

Ideal for small rooms

A shorter table top is available for the complete system.

Benefit: The system is fully operational even in very confined spaces.

User friendly design

The **Amadeo R** is the ideal imaging unit for X-ray diagnoses from head to toe. The bucky table and wall stand allow X-ray images to be taken of the skull, thorax, pelvis, skeletal system and extremities of patients in a prone, sitting or standing position.

Benefit: All types of examinations can be covered by the **Amadeo R** system.

Excellent image quality

The standard high-quality direct radiography detector operating on the basis of a caesium-iodite (CsI) scintillator provides excellent quality even in the case of low X-ray dose parameters.

Benefit: In particular when comparing images directly to the commonly used GadOx ($Gd^{2}O_{2}S:Tb$) detectors, this enhanced quality is clearly visible.

Fast

The X-ray image is available for viewing and diagnosis within 6 – 8 seconds after the exposure is triggered.

Benefit: Fast work flow with optimal documentation.

Easy to operate

The functional design makes the system easy to operate and allows radiographers to quickly familiarise themselves with the system. The X-ray tube assembly and the bucky tray can be lowered all the way down to the ground.

Benefit: Safe and easy operation





User-friendly

The professional **dicomPACS® DX-R** acquisition software appeals through an intuitive and modern graphical user interface. Examinations may be conducted comfortably at the monitor while all the necessary adjustments of the X-ray parameters are automatically communicated to the generator.

Benefit: You work with only one control console.

Cleverly designed

By making use of a 43cm x 43cm detector, the extra effort of rotating from vertical to horizontal images is no longer necessary. When the grid is removed, it is, of course, also very easy to take images of extremities etc.

Benefit: No extra effort is required to rotate the detector.



Software

Advantages of the professional **dicomPACS® DX-R** X-ray acquisition software

- Modern graphical user interface (GUI) adaptable to almost **any language**
- Capture of patient data via **DICOM Worklist, BDT/GDT, HL7** or other protocols – data may also be captured manually
- Use of **DICOM Procedure Codes** for the transfer of all relevant examination data directly from the connected patient management system (HIS/RIS)
- **Freely configurable** body parts with more than **200 projections** and numerous possible adjustments
- Safe and fast **registration of emergency patients**
- Allows the user to **switch between examinations** of a patient, for instance to avoid having to re-position the patient frequently
- Integrated **measuring, special image filters and many other tools** for measuring and image optimisation
- Allows the user to **subsequently add images** to an examination, even after that examination has already been completed
- Entry of recurring **examination procedures as macros**, e.g. thorax screenings
- **Fully integrated radiographic positioning guide** for each examination in human and veterinary medicine incl. comprehensive notes, photos, videos and correct X-ray images
- A single work station with installed **dicomPACS® DX-R** software may be upgraded by the following options (selection):
 - Tools for taking images of an entire leg (full spine) or an entire spine (**image stitching**)
 - Planning and working with **digital prostheses templates/ operation planning**
 - Connection of several diagnostic monitors
 - Capturing additional patient and examination data and their freely configurable statistical evaluation



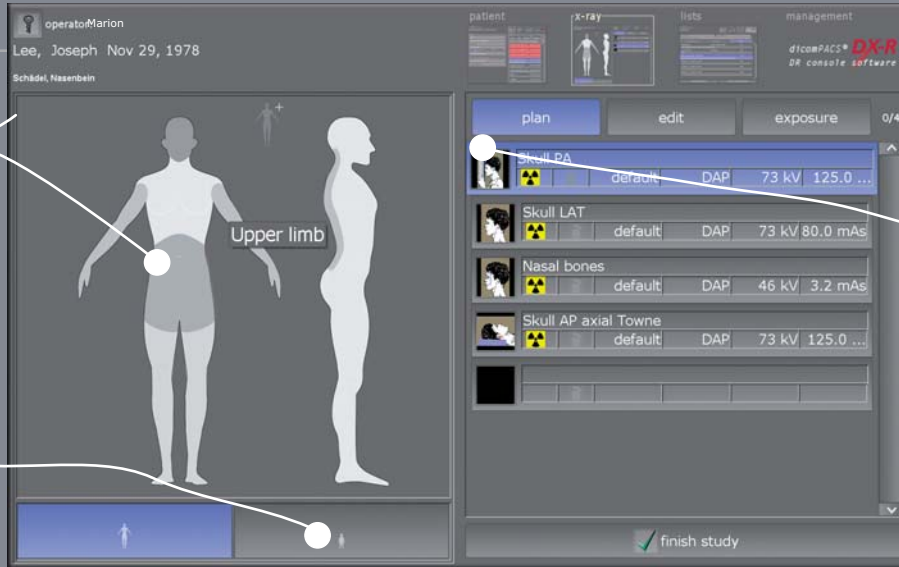
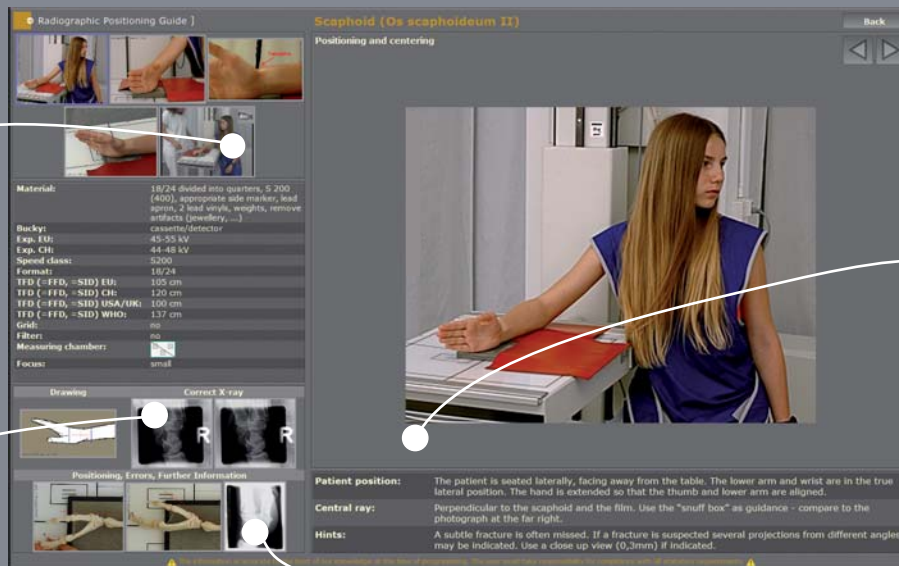


Chart for the planning of an individual X-ray job

The correct settings for adults and children at a mouse click

Switch to the planning of X-ray jobs for children

dicomPACS® DX-R job creation



Video with sound for the step by step positioning of the patient

Presentation of helpful hints for the positioning of the patient, central beam, tips and tricks, frequent errors etc.

Shows an example of a correct X-ray image

dicomPACS® DX-R radiographic positioning guide



Opens examples of inaccurate X-ray images with comments

Preview of the current X-ray image

Preview of the X-ray image and worklist in dicomPACS® DX-R

Image processing

Automatic image processing for optimal quality

- Perfect images at all times - generally **no adjustment** required
- Integrated software for **automatic image optimisation**
- Professional, **adaptable image processing** for each individual examination to obtain best possible image settings for the needs of each customer
- Due to specially developed processes, the image processing allows the user to **vary the X-ray settings on a large scale** while the image quality remains virtually the same (**possibility of reducing the dosage**)
- **Bones and soft tissue** in one image - this enables the user to significantly improve his diagnosis
- **Details of bones and microstructures are very easy to recognise**
- Noise suppression
- **Black mask** (automatic shutters)
- Automatic **removal of grid lines** when using fixed grids



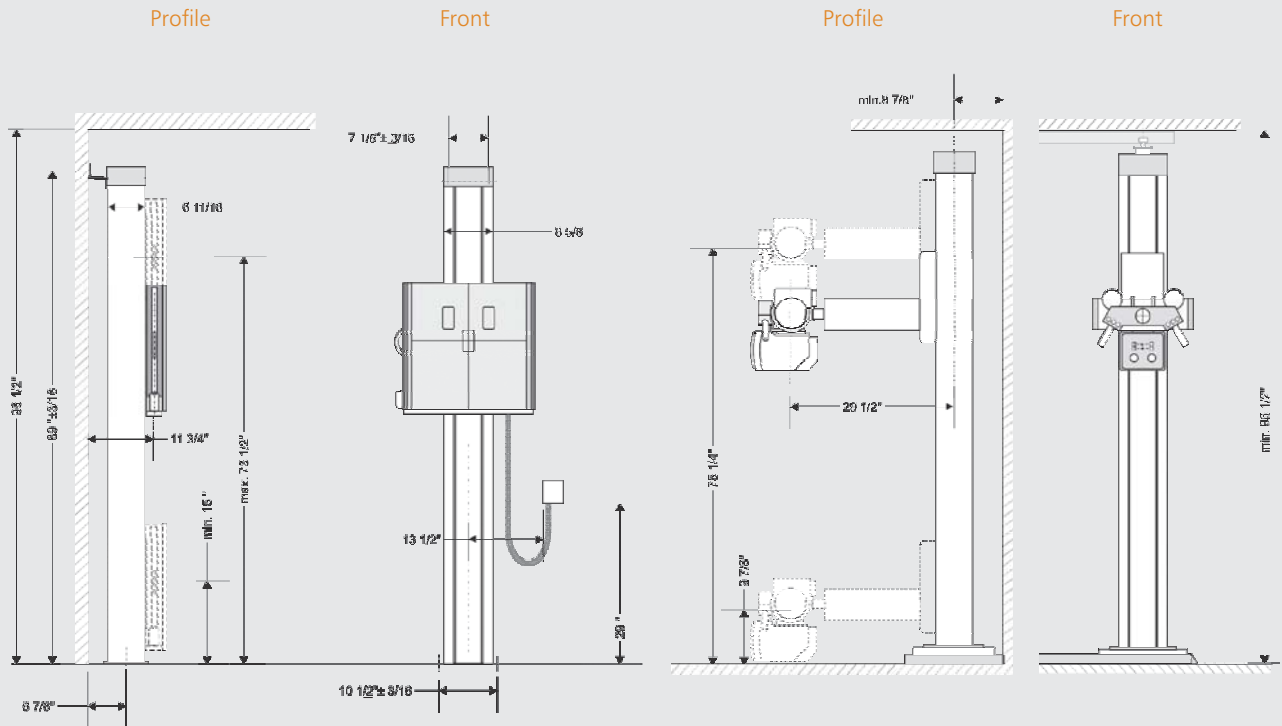
Exposure with **standard** image processing



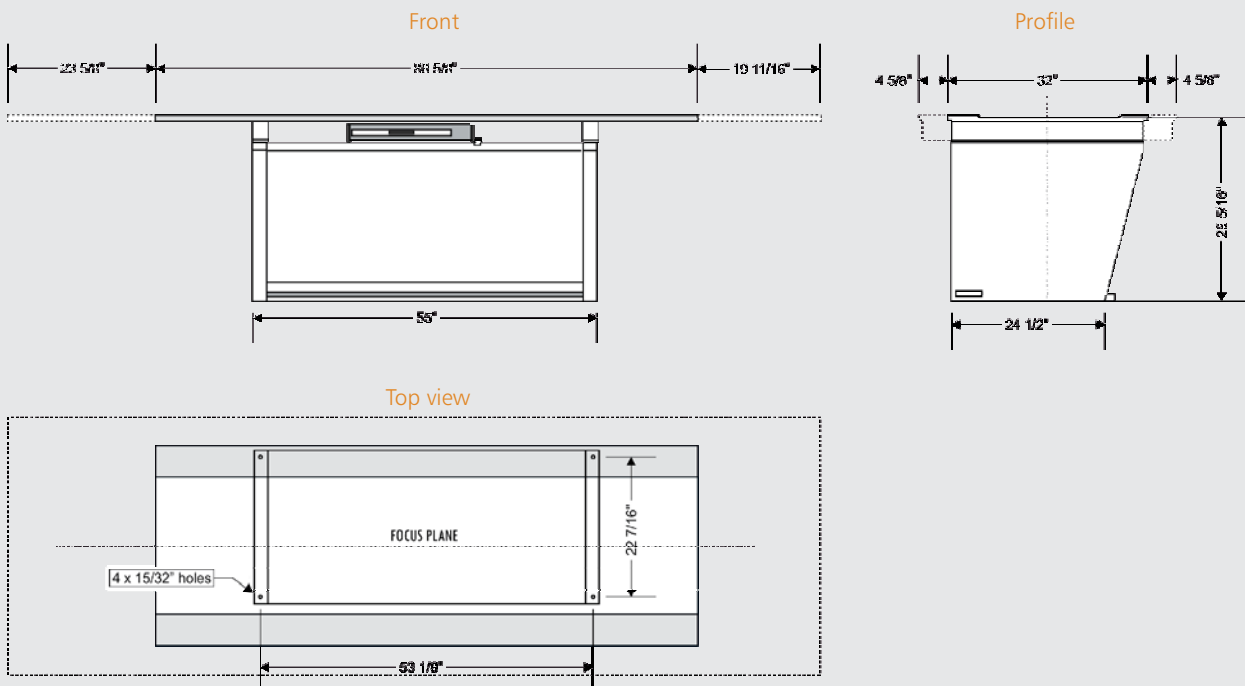
Exposure with **dicomPACS[®] DX-R** image processing



Dimensions of the wall and X-ray stands



Dimensions of the integrated X-ray table



[dimensions without guarantees]

Special Chiro Tools

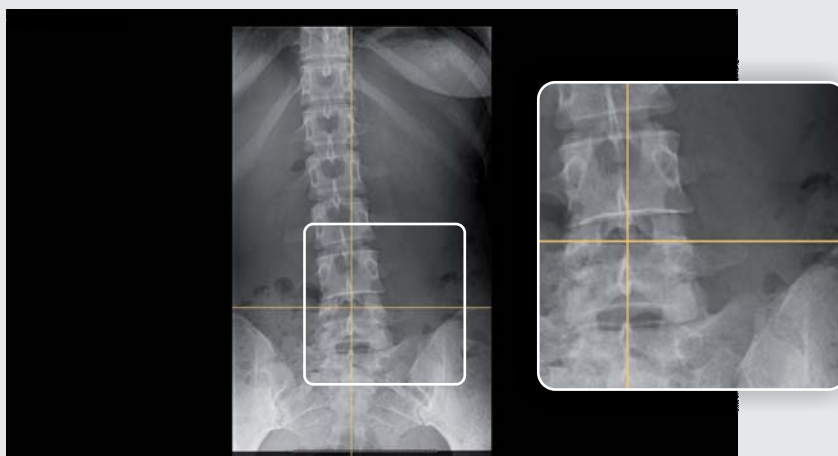
Diagnostic tools for optimal diagnosis

The Chiro Tools have been developed in cooperation with experts from the USA and Canada and offer great possibilities for diagnosing accurately as well as for planning further treatment. According to the tool used, automated center lines and points, defined curves, angle measurements etc., are generated after the manual selection of the points of interest.

Of course all the standard tools (like distance measurement, angle and Cobb angle, mark spots etc.) are also included.

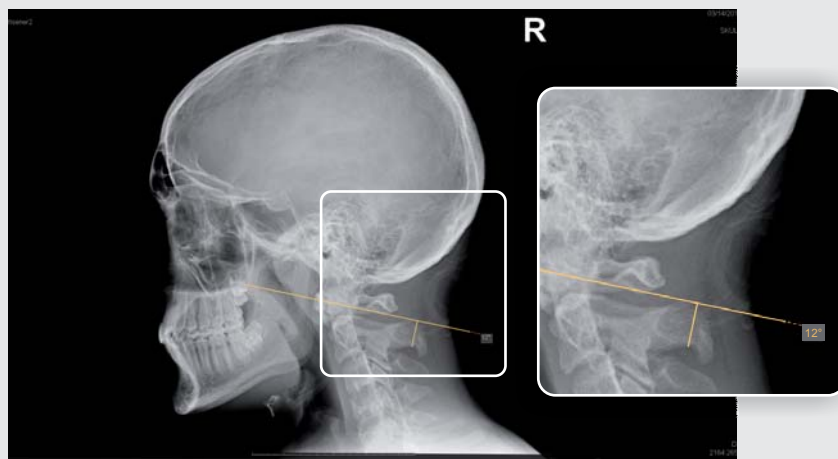
Axis line

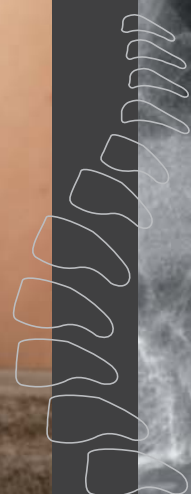
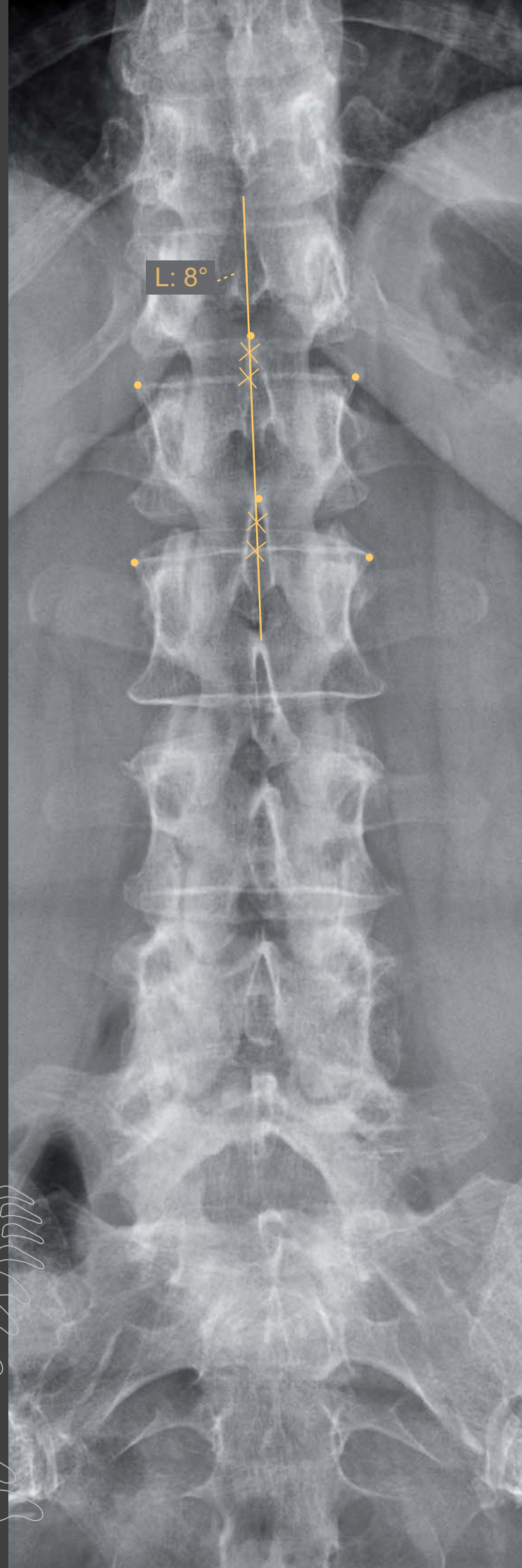
The tool creates a vertical or horizontal axis, depending on the direction, in which the mouse pointer is moved.



Orthogonal line

This tool is used to mark perpendicular lines on existing or yet to be drawn baselines. The divergence from the x/y-axis (nearer axis) is displayed by default.





Chiro tools

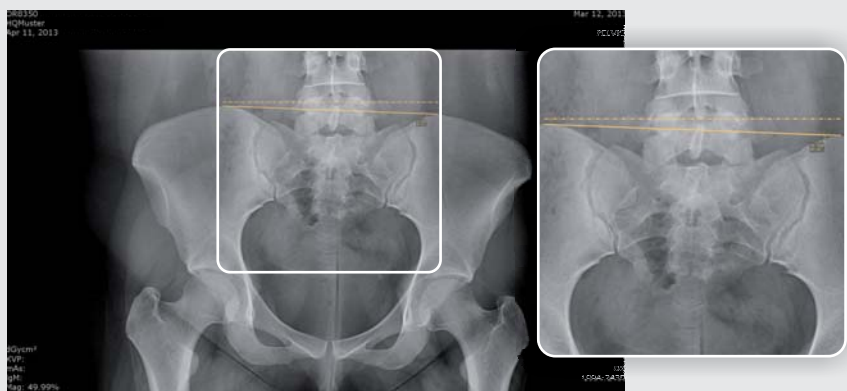
George's line

This tool is used to draw vertical lines on each vertebra along the spine in a lateral view and to calculate their distances (in mm or inch).



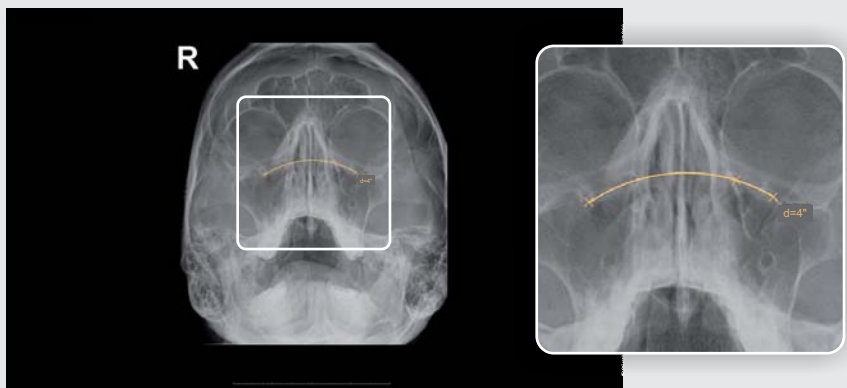
Horizontal or vertical level

This tool calculates the horizontal or vertical level. By default the nearer axis is used for calculation.



Circumscale

An arc is drawn through three defining points and the diameter of the corresponding circle is displayed by default.



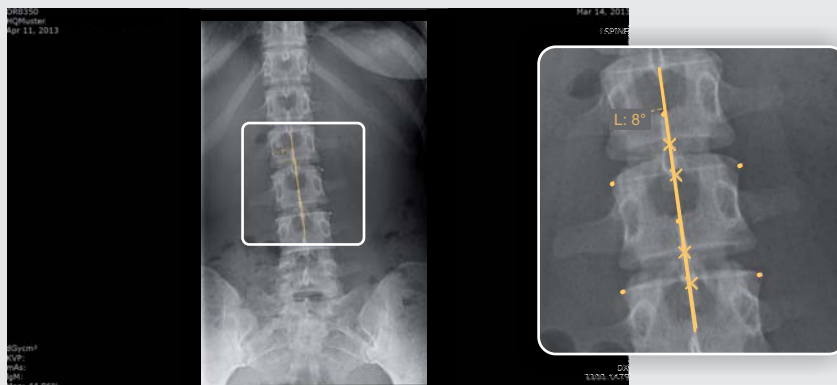
Spinal curve

This tool is used to draw an arc in the lateral view of the spine. The annotation uses a fixed radius set by default to 220 mm. Radius or degree can be adjusted manually.



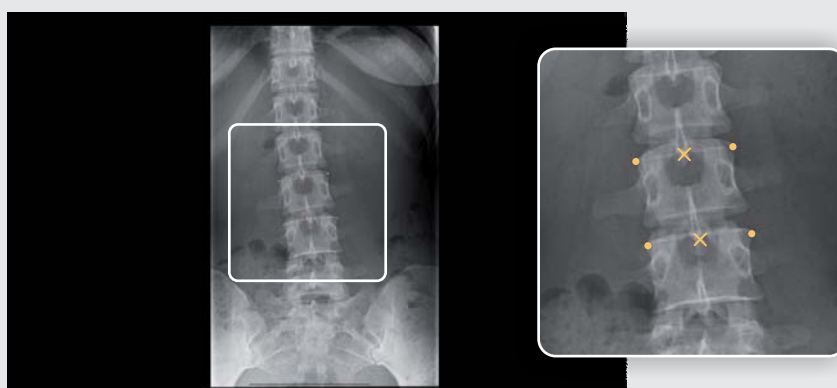
Vertebrae line

This tool generates a vertical line of six points (2x3) along the spinal canal and displays the lateral divergence and side of laterality in degrees.



Center point

This tool calculates the center point between two points.



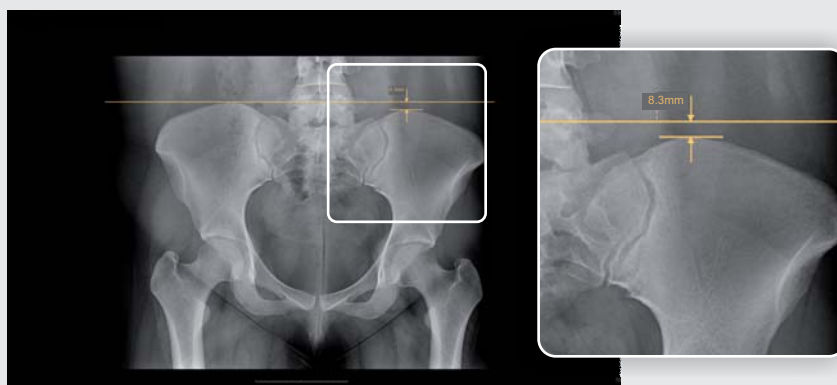
Distance comparison

This tool compares the distances between three set points (between point 1 and point 2 and between point 2 and point 3) and shows the larger distance.



Pelvic obliquity

This tool is a measurement that is calculated automatically after two simple clicks which generate two horizontal lines showing the distance between these two parallels.



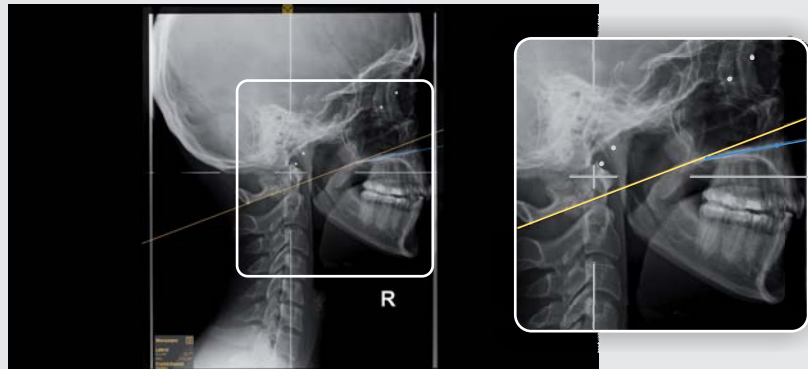
Special Tools

dicomPACS[®] Diagnostic tools for Upper Cervical Chiropractic

The Upper Cervical Chiropractic tool set has been created in cooperation with leading experts from the US and Canada. It offers a variety of ways to reach a fast and accurate diagnosis. Templates like the Cephalometer, Grid, Circumscale, and Relatoscope enable you to continue working as you are used to.

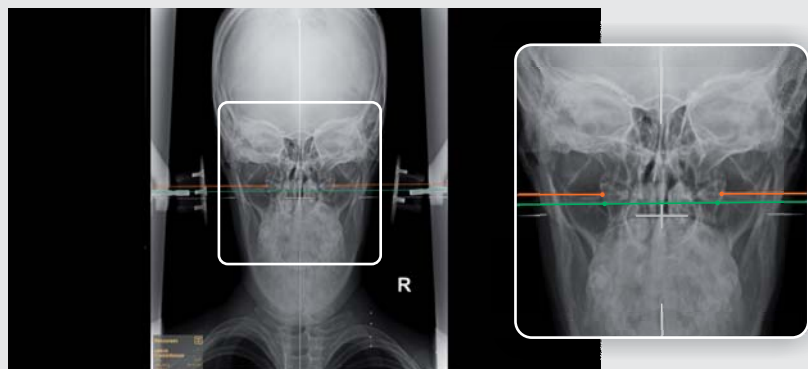
S-Line and Hard Palate Line and Raw Data Box

You simply set two points each on C1 and the hard palate to create the S-Line and the Hard Palate Line. We will show you the horizontal angles. All measured values will be shown in the raw data box. You can also show and hide values manually.



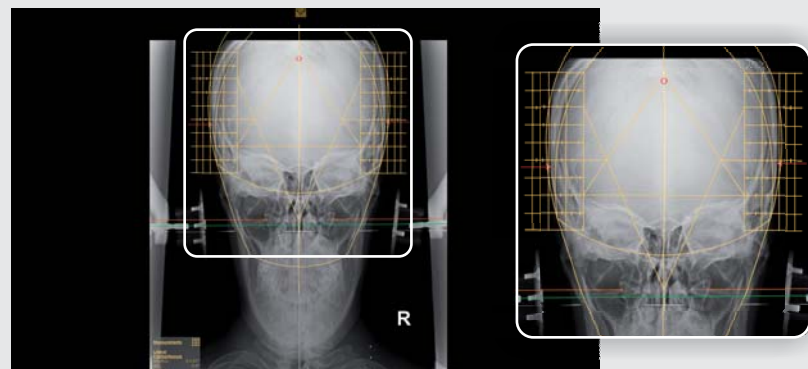
Atlas Plane Line and Atlas Check Line

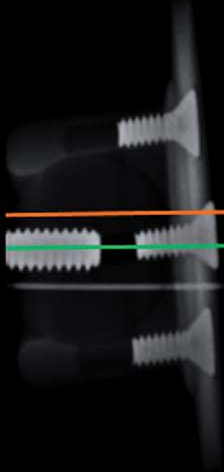
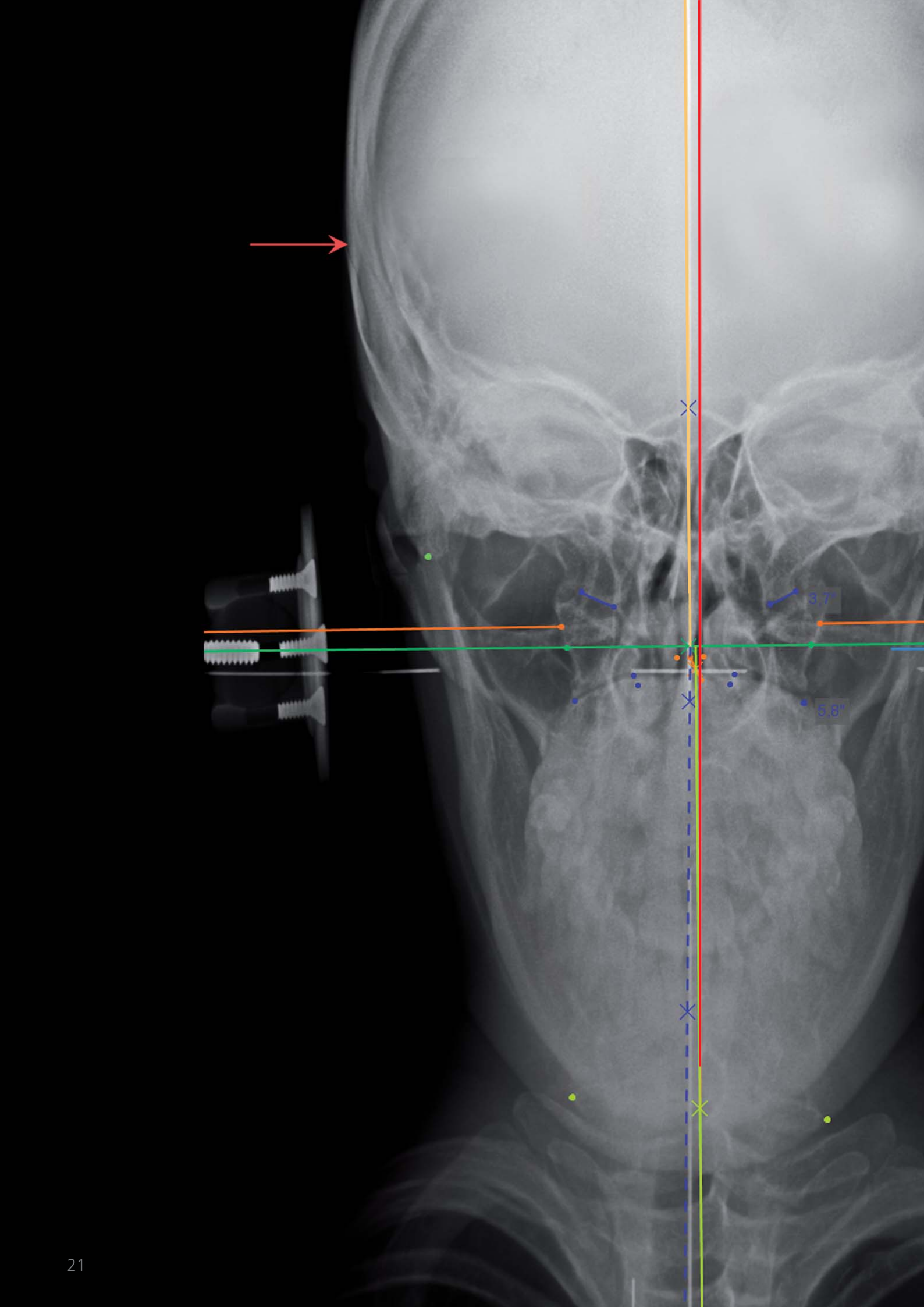
The horizontal angle and the angle between Atlas Plane Line and Atlas Check Line will be shown in the raw data box.



Cephalometer and Central Skull Line

Use the Cephalometer to draw the Central Skull Line. Laterality and Skull Tippage will be calculated automatically. The Four Elements and Listing Information will be inserted and are completely editable.



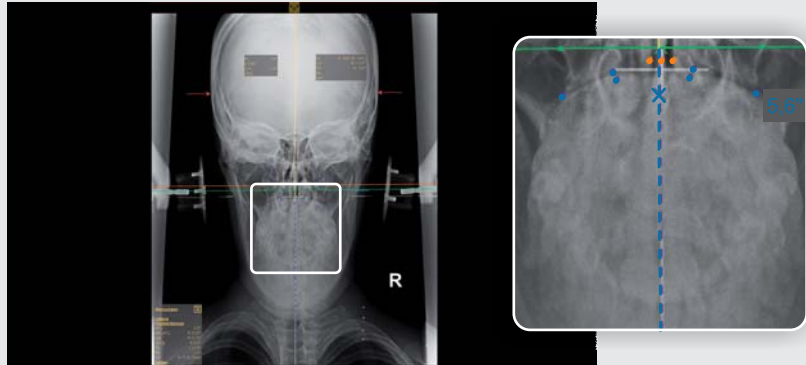


3.7°

5.8°

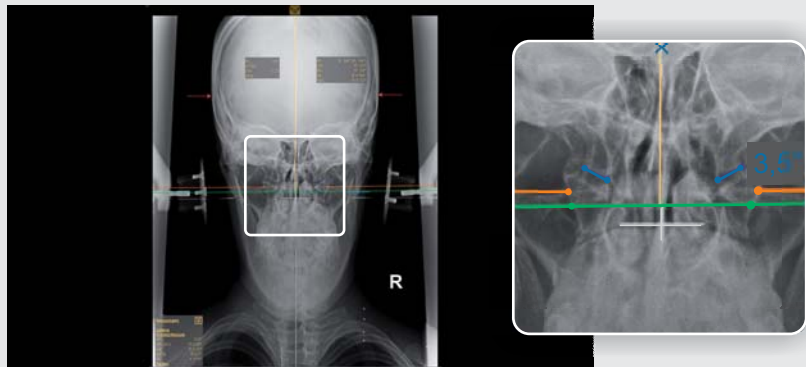
Axial Circle

The Body Center Line will be set automatically and the Axial Circle will be calculated and shown on the side of laterality. You can set the calculated measurement manually to the value you prefer.



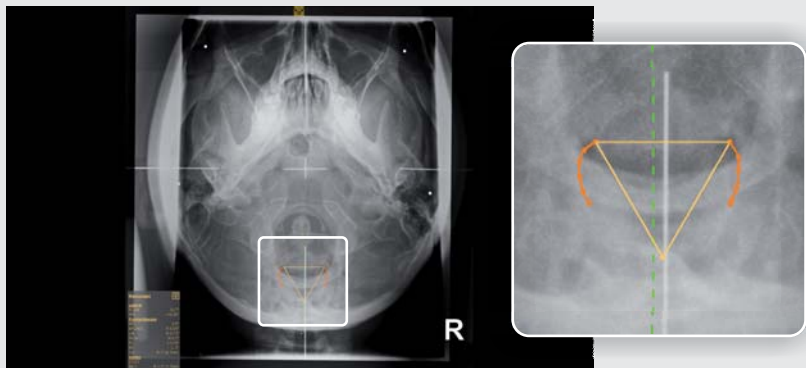
Condylar Circle

Choose between the three point and four point Condylar Circle. The middle point will be shown. You can set the calculated measurement manually to the value you prefer. The Relatoscope will use the shown value.



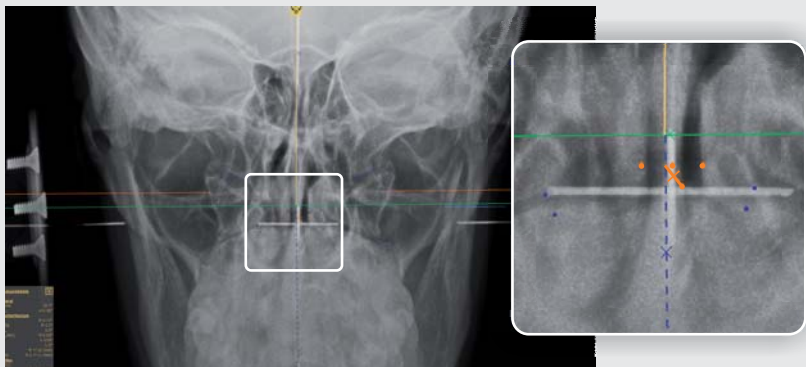
Odontoid Center and Vertex Square

Mark the lateral aspects of the dens and the Odontoid Center Line will be inserted. After marking the C2 canal, the Vertex Square will be inserted and the Spinous value will be calculated depending on the Condylar Circle.



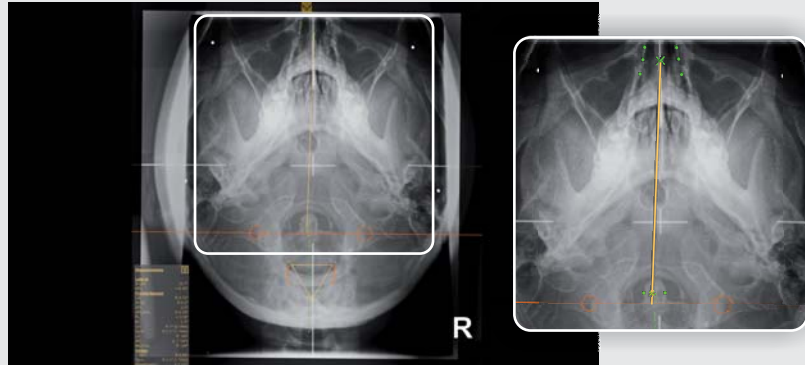
Odontoid, Spinous and Relatoscope

Use the Relatoscope to apply the Spinous value from Vertex to Nasium View. Mark the lateral aspects of the dens and the (corrected) Odontoid will be inserted automatically.



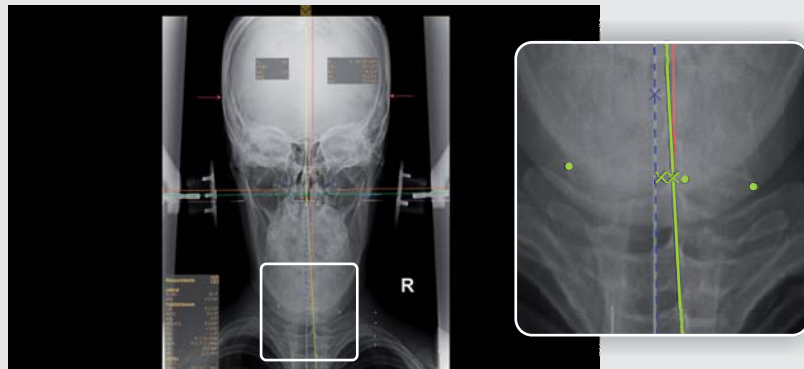
Vertex Skull Line

After marking the nasal structures, click the Inferior Point button. The point will be set automatically depending on the Listing Information value and the Vertex Skull Line will be inserted. Atlas Rotation will be calculated.



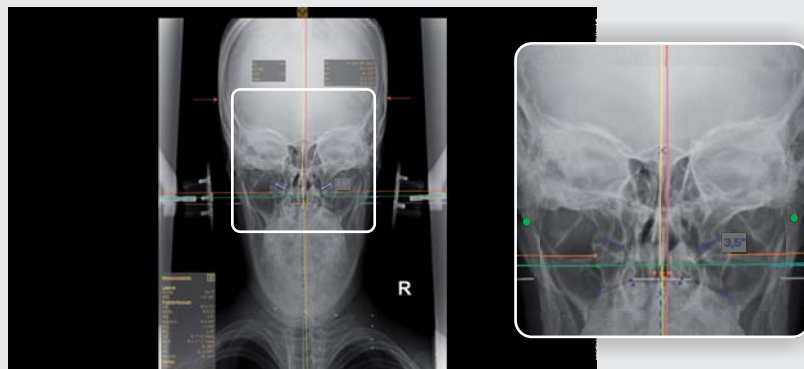
Lower Angle and Angular Rotation

The Lower Angle and Angular Rotation will be calculated automatically after setting the Inferior Point. You can also set a corrected Inferior Point.



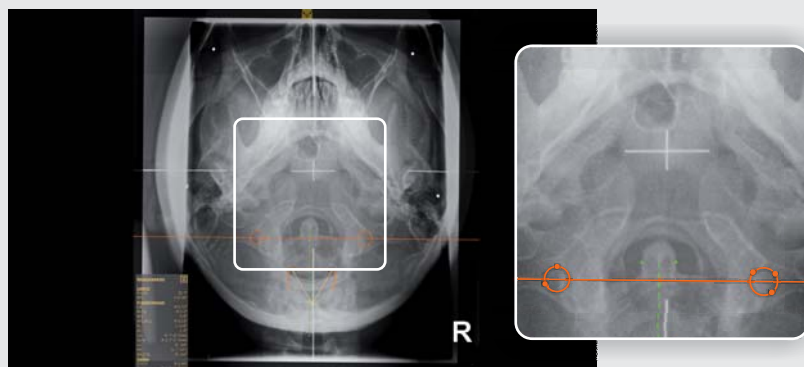
Intermastoid Line

Mark the inferior tips of the mastoid processes. The measured value, its orthogonal divergence from the Central Skull Line, will also appear in the raw data box.



Vertex Atlas Line

After marking the transverse foramina of the atlas with three points each, we will draw the Vertex Atlas Line and show the convergence of C1 and C2.



Delivery includes

The Amadeo R systems come with the following components:

Components

Components	Amadeo R-DR DR system with integrated fixed dual flat panel	Amadeo R-DRw System with wireless flat panel with generator control	Amadeo R-AX System for film/ CR cassettes without generator control
50 KW HF generator	✓	✓	✓
X-ray table <ul style="list-style-type: none"> 4-way floating table (220 x 81 cm) Movement range: longitudinal 110cm, lateral 24cm Motorised bucky for oscillating grid Oscillating grid for FDD 86 - 112 cm 3-field ionisation chamber (AEC) Bucky can travel across the entire length of the table Two stage electromagnetic locking device with foot control 	✓	✓	✓
Wall stand <ul style="list-style-type: none"> Height adjustment, with counterweight balance, vertical movement range 149 cm Motorised bucky for oscillating grid Oscillating grid for FDD 100 – 180 cm 3-field ionisation chamber (AEC) Choice of electrical or mechanical brakes Easy glide system for effortless vertical positioning 	✓	✓	✓
Tube stand <ul style="list-style-type: none"> Mobile stand with command / tube support arm, Smooth motion as a result of counterweight balance Height adjustable with 360° rotation Movement range: longitudinal 195 cm, lateral 162 cm Manually adjustable collimator with halogen Full field light beam localiser Dose area product meter 	✓	✓	✓
X-ray tube 150 kVp Optical focal spot: 0.6 and 1.2, anode revolutions: 2,850 rpm Anode angle: 12°, heat capacity: 300 KHU, focal spot: 0.6 / 1.2 mm Max. KVP: 150 kVp	✓	✓	✓
2 x Flat panel detector 17" x 17" CsI <i>Detector with excellent image quality and immediate image availability</i> 	✓	-	-
1 x Flat panel detector 14" x 17" or 17" x 17" CsI wireless <i>Wireless X-ray imaging! Fits into an existing X-ray system without requiring modification (in conformity with the X-ray film cassette), fast-charging, long-life batteries</i> 	-	✓	-

Components		Amadeo R-DR	Amadeo R-AX	Amadeo R-DRw
<p>Operation by dicomPACS® DX-R acquisition station</p> <p><i>Mini PC with 19" touch screen monitor, dicomPACS® DX-R console software with modern graphical user interface including basic software package</i></p>		✓	-	✓
<p>Operation via PC with generator control software</p>		-	✓	-
Optional components to upgrade the Amadeo R system:				
DAP meter (Dose Area Product meter)		•	•	•
Upgrade from 50 KW to 65 KW		•	•	•
Upgrade from 50 KW to 80 KW		•	•	•
<p>Wall stand with tilting function</p>		•	•	•
<p>X-ray stand Option ,R' (Rotation)</p>		•	•	•
<p>X-ray stand Option ,T' (Transversal)</p>		•	•	•
<p>Motorised collimator without filter change</p>		•	•	•
<p>Motorised collimator with filter change</p>		•	•	•
<p>Manually exchangeable lumbar spine/ thoracic spine filters</p>		•	•	•
<p>Patient positioning table – height adjustable</p> <ul style="list-style-type: none"> ▪ 4-way lifting table for effortless patient positioning ▪ Length: 220 x 81 cm, optional: 185 cm ▪ Height: min. 55 cm, max. 85 cm ▪ Convenient foot pedal control ▪ max. patient weight: 230 kg 		•	•	•

Portfolio

Overview - products of OR Technology

Medici DR Systems

DR retrofits - digital upgrade set for existing X-ray systems incl. **dicomPACS®DX-R** acquisition software, also available for stationary and mobile X-ray machines



Leonardo DR Systems

DR suitcases - compact suitcase solutions for mobile and portable X-ray incl. **dicomPACS®DX-R** acquisition software



Amadeo X-ray Systems

Complete digital X-ray systems (incl. stand, bucky, generator, flat panel incl. **dicomPACS®DX-R** acquisition software etc.) as well as mobile and portable X-ray solutions



Divario CR Systems

CR solutions - CR systems for digital X-ray with cassettes incl. **dicomPACS®DX-R** acquisition software



X-ray Accessories

Accessories for X-ray (e.g. radiation protection walls, gloves etc.)



dicomPACS®

Image management (PACS) - comprises acquisition, processing, diagnosis, transfer and archiving of image material



ORCA

Cloud-based archive solution - safe, long-term archiving of patient data with intelligent usage of internal databases, communication platform with colleagues and specialists and transfer of image data to patients



dicomPACS®DX-R X-ray Acquisition Software

X-ray acquisition software [only for OEMs] - acquisition and diagnostic software for X-ray images from flat panels or CR systems



Info hotline: +49 381 36 600 600

OR Technology (Oehm und Rehbein GmbH)
18057 Rostock, Germany, Neptunallee 7c
Tel. +49 381 36 600 500, Fax +49 381 36 600 555
www.or-technology.com, info@or-technology.com

[Stamp of distribution partner]