vertaplan – the spine surgeon's software

vertaplan

System for successful reconstruction of the individual sagittal balance

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spine intelligence

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What do you think of patient-specific reconstruction of the spine geometry?

Optimum surgical outcome in just a few steps – developed in cooperation with leading and acknowledged surgeons

The combination of software-based planning in conjunction with implants has been successfully deployed in surgery for many years. With this, better surgical outcomes have been demonstrably achieved as opposed to with manual planning techniques. SPONTECH is carrying this approach forward and extending the beneficial principle to spine surgery.

With our new **verta**plan software you calculate precisely the surgical correction for the specific patient and at the same time assess the effect this will have on the adjacent spine segments. This guarantees optimum treatment of the individual patient and achieves the desired sustainability.

Higher patient satisfaction at lower overall cost

During surgery, too, the new version of **verta**plan facilitates the ideal patient-specific adjustment of the spine geometry. The system thus supports the reconstruction of the original, patient-specific anatomy and offers many benefits for patients and surgeons alike. Even in the medium term, the new sustainability of this surgical procedure leads to higher patient satisfaction and at the same time to a reduction in your overall costs.

Thanks to the use and combination of diagnostic procedures, implants, special instruments and unique software, the spine geometry can be adjusted to the exact degree and millimeter. The risk of early degeneration of the adjacent spine segments is thus reduced to a minimum.

- \+ Excellent surgical outcomes
- \+ Reduction of early adjacent degeneration
- \+ Satisfied patients free of pain

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Fast, reliable implant planning for optimum patient treatment

Supports additional sections of the spine

For the first time ever **verta**plan supports not only measurements and planning in the lumbar region, but can now also be used for the entire spine. Whether you want to measure the pelvic angle in the coronal plane or you need to monitor the progress of scoliosis in the thoracic region - **verta**plan provides the tools you need.

- **Cervical spine:** multi-segment implant planning with analysis of functional images and versatile measuring tools
- **Thoracic spine:** versatile measuring tools for the overall vertebral column and the pelvis
- **Lumbar spine:** multi-segment implant planning with analysis of functional images and versatile measuring tools

Independent measuring function

Also beyond regular surgical planning, **verta**plan provides convenient normalization and measuring functions for DICOM images.

+ Enhanced and faster patient care
+ Accurate documentation and reproducibility for thorough quality assurance
+ State-of-the-art image data management

Multi-segment surgery in the lumbar spine

Measuring functions

Supports various implant systems

With the new version of **verta**plan you can now plan not only the established vertaconnect PLIF cage system for the lumbar spine but also dynamic stabilization or dorsal fixation procedures. In the cervical region you can insert OSD Squale cages and if required can also fixate using the OSD Origin plate system.

Integrated implant systems:

- S14 B-Fus – polyaxial fixation system
- S14 B-Dyn – posterior dynamic stabilization system
- OSD Squale – cervical cage
- OSD Origin – anterior cervical plate

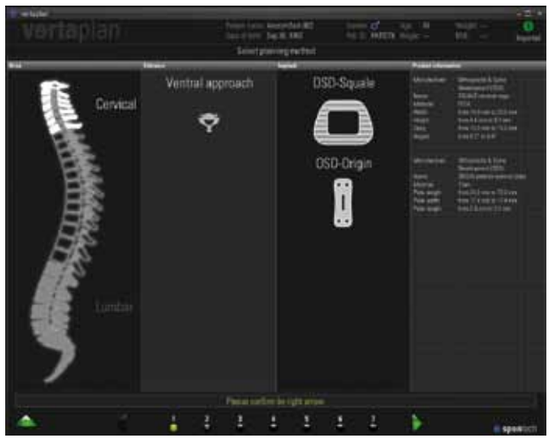
Multiple implant systems in one segment

The software allows you to use multiple cooperating implants in one spine segment for support, dynamic stabilization or fixation.

Studies and image series from PACS taken into account

All studies and image series that exist for a patient are now displayed clearly in a drop-down illustrated table. Simply drag the images that you need for your planning into the frame provided for the workflow.

Vertebral marking in the cervical spine



Implant planning for the cervical spine

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Intelligent combination of software and appropriate implants for optimum surgical outcomes

For preoperative planning you need four functional X-rays in DICOM format:

- Neutral frontal position (coronal AP)
- Functional lateral image (sagittal flexion or inclination)
- Neutral lateral position (sagittal neutral)
- Functional lateral image (sagittal extension or reclination)

In the functional X-rays, all of the vertebra are first of all labeled. The measuring points are placed automatically and can be corrected by the surgeon. These parameters are prerequisite for calculating the height and angle of the individual discs.

Vertebral marking in the lumbar spine region

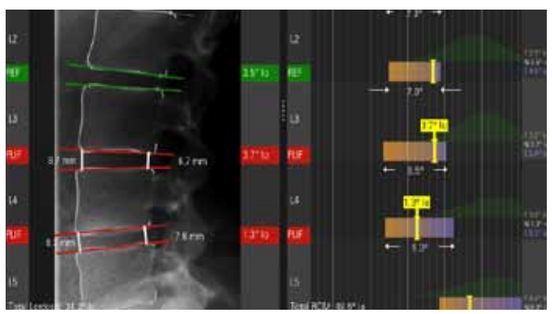
The result is the calculation of the ventral and dorsal height of the disc space, the angle and the range of motion (RoM) of the segment.

The movement, ranging from a flexion to an extension position, can be graphically simulated with and without implant.

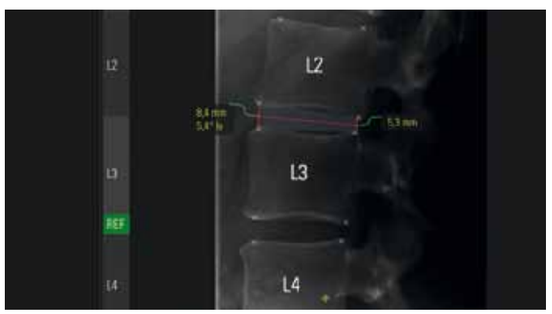
With the help of the displayed calculation data, optimum assessment and planning is possible. The software recommends the spontech implant that is best suited, and this is then approved by the physician for surgery.

Implant planning in the cervical spine region

+ Confidence based on unambiguous implant selection
+ Cost reduction and lower radiation exposure thanks to reduction of intraoperative X-ray controls
+ Continuous workflow which is extremely reliable, efficient and flexible

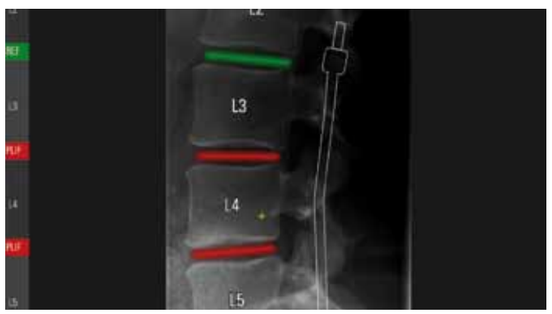


Takes the motion parameters of the individual patient into account



Measures the vertebral bodies and disc spaces

Automatically calculates which implant is best suited for the patient



Reduces the risk of degeneration in adjacent spine sections

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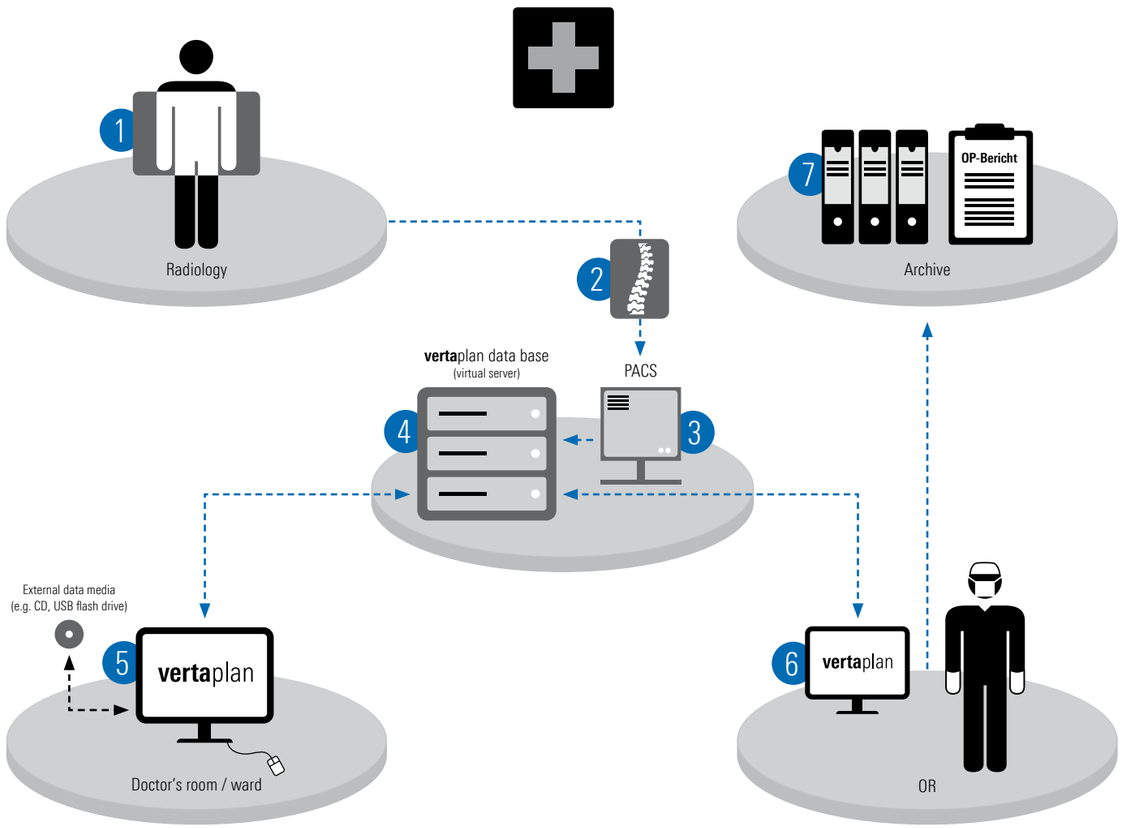
Saving time and money with efficient image data management



Clinical network system

What do you think of:

+ improving and speeding up patient care?
+ reducing adjacent degeneration?
+ discharging satisfied patients free of pain?
+ gaining certainty with unambiguous implant selection?
+ accomplishing cost reduction and less radiation exposure due to fewer intraoperative X-ray controls?
+ achieving accurate documentation and reproducibility for thorough quality assurance?
+ receiving simple, transparent guidance through the planning steps of the software, so that you can perform these faster?

In order to organize the complex procedures in daily hospital routine simply and reliably for the user, the **verta**plan software provides a central data base with an interface to the PACS[1] archives of global manufacturers.

vertaplan enables the import of DICOM X-rays[2] via the **verta**plan workstation. The interface can be flexibly integrated into the existing clinical information system infrastructure and is available for all **verta**plan workstations, based on the specific needs. Collaboration between the different areas and departments becomes significantly easier and more reliable due to the continuous workflow. Thanks to the uncomplicated availability of the data this provides an automated workflow for optimum resource utilization and hence also cost savings. In time-critical situations, you can rely on the **verta**plan software procedures. The result of the optimized image communication indicates enhanced and faster patient care in your hospital. You see at a glance where a patient's data is available and at what planning stage you are.

[1] Picture Archiving and Communication System
[2] Digital Imaging and Communication in Medicine

Image data can be imported into the **verta**plan data base and used directly for preoperative planning. The state-of-the-art image data management guarantees a continuous workflow from data import right through to the digital report of the planning, which can be printed out at the end. In addition, DICOM images can still be uploaded manually from external data media (e.g. CD or USB flash drive). This means that preoperative planning can be performed at any time even without a network connection.

vertaplan runs on various operating systems such as Windows, Apple Mac OS and Linux and is available in various languages. **verta**plan works with the systems of leading PACS manufacturers on the basis of national and international standards. Should your PACS not yet support these functions, spontech will be happy to take over the communication with the responsible manufacturer.

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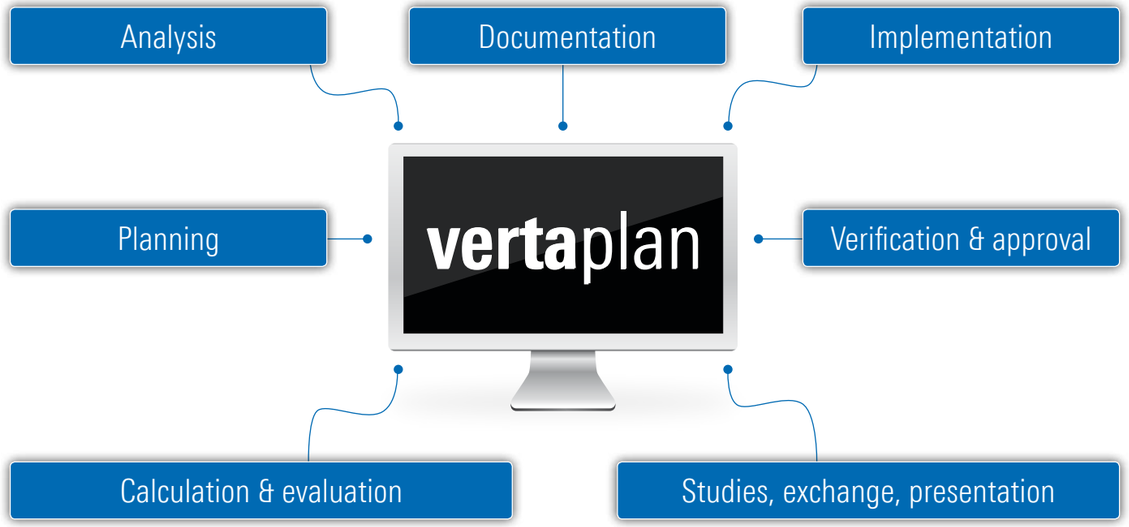
What does **verta**plan contribute to your confidence and to optimum patient care?

The use of the **verta**plan software supports the quality of the medical care and the outcome thanks to the improved workflow for the preoperative planning of surgery.

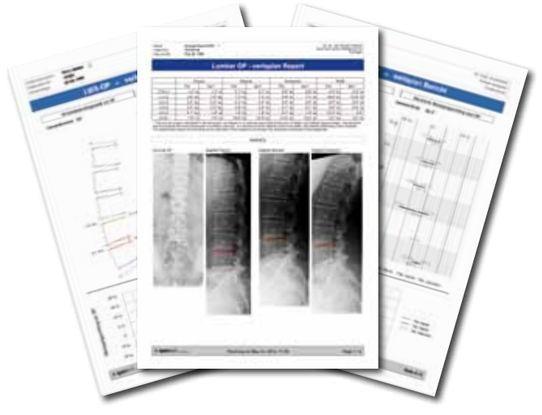


vertaplan provides:

- \+ much simpler preoperative planning, thus promoting fast, reliable implementation in the daily workflow
- \+ informative demonstration to help patient comprehension during briefing
- \+ controlled quality assurance of the results for optimized medical care
- \+ complete documentation of planning and surgery for filing with the patient's records
- \+ detailed calculations as a basis for studies and data bases

It is thanks to these benefits that such comprehensive planning can for the first time be integrated into routine care. What is more, these planning processes are not only more stable and hence less error-prone, but they also save time in comparison to the procedures used to date.

Furthermore, the **verta**plan software can be used to evaluate the preoperative planning after surgery. Consequently it can be used for individual and systematic quality assurance of the results.



Planning report

You can perform the planning at any time, even sitting at your desk, and integrate it into a medical report.

The preoperative planning can be clearly demonstrated to the patient, which supports the patient's comprehension and motivation with respect to the therapeutic measures.

Individualized planning is greatly simplified by the software and thus supports fast, reliable implementation in the daily workflow.

A report of all calculation and planning data is automatically generated in PDF format. This can be printed out for documentation purposes and filed with the patient's records.

You can make impressive presentations to colleagues and students.

 MMB9016-02/3012

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