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***Preservation in motion***

Affinis Glenoid vitamys  
uncemented





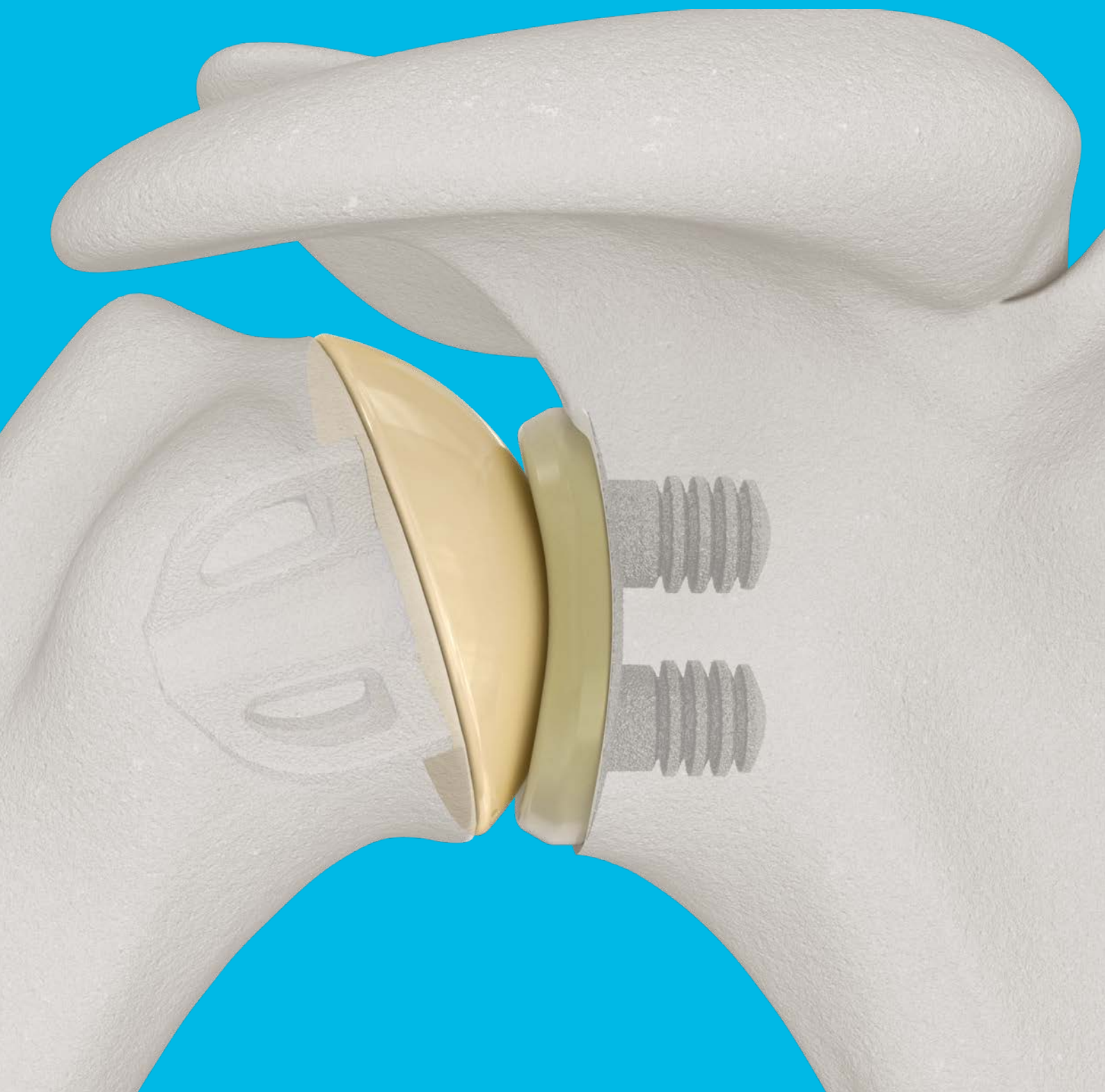
# PIONEERING

*Mathys has significant experience in the area of upper extremities. As early as the 1970s, the first prostheses in the shoulder area were developed, produced, and marketed. In 2009, Mathys achieved a pioneering feat in this development with the stemless shoulder prosthesis, Affinis Short.*

*More than ten years after the first implantation, this prosthesis has established itself and has since been considered the forerunner of stemless prostheses in shoulder surgery.*



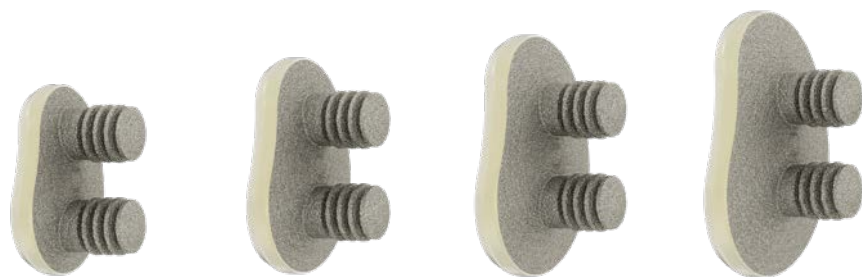
# PIONEERING SHOULDER PROSTHESIS





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With the **bone-preserving, uncompromising, and hypoallergenic** Affinis Glenoid vitamys uncemented, the next pioneering step in development is taken.



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The RM titanium coating of the isoelastic glenoid component allows **completely uncemented anchoring** of the anatomic shoulder prosthesis, Affinis Short.

# BONE PRESERVING

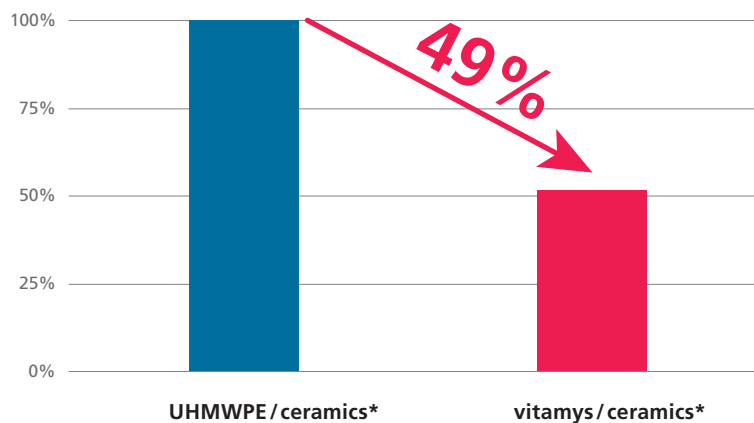
## Low wear thanks to vitamys

An advantage is the bone-preserving potential of the implant. The low-wear, vitamin-E-enriched, highly crosslinked polyethylene vitamys<sup>1</sup> reduces the risk of osteolysis through its high wear resistance<sup>2</sup>.

### Affinis Glenoid

Reduction of wear<sup>3</sup>

Wear reduction in % of the Affinis Glenoid sliding couplings



\* Bionit ( $\text{Al}_2\text{O}_3$ )

## Isoelastic thanks to the RM coating

The titanium particles embedded in the vitamin-E-enriched, highly crosslinked polyethylene, vitamys, surround both pegs and the back of the glenoid component. The fact that the titanium particles are anchored individually in the polyethylene without a structural connection between them, plays an important role here. This ensures that the coating minimally changes the elasticity of the implant. The Affinis glenoid vitamys uncemented thus remains isoelastic.

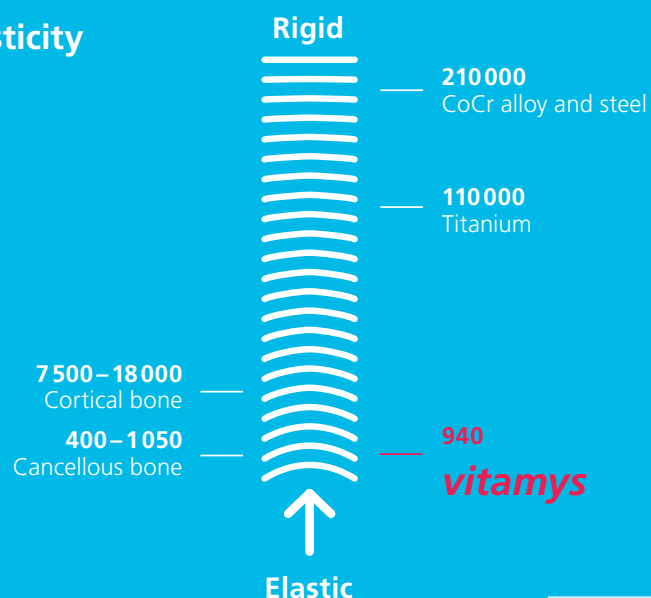


### Bone preservation thanks to uncemented fixation

The RM coating also contributes to bone preservation, thanks to the uncemented fixation of the glenoid component. Because no cement is required, there is **no risk of thermal damage to the surrounding bone** during curing of the bone cement.

In hip replacement surgery, long-term clinical results of isoelastic monoblock implants with an RM coating have demonstrated the potential of this technology<sup>4</sup>. Because the elasticity of the implant is similar to that of the surrounding bone<sup>5</sup>, the likelihood of stable, long-term anchoring is increased. The unique properties of the RM titanium coating promote the osseointegration of the Affinis Glenoid vitamys uncemented, which enables good secondary fixation of the implant<sup>4</sup>. In addition to this excellent clinical benefit, a bone-preserving approach is likewise provided in the case of a revision as no cement removal is required from the glenoid bone.

Modulus of elasticity  
(N / mm<sup>2</sup>)



# UNCOMPROMISING

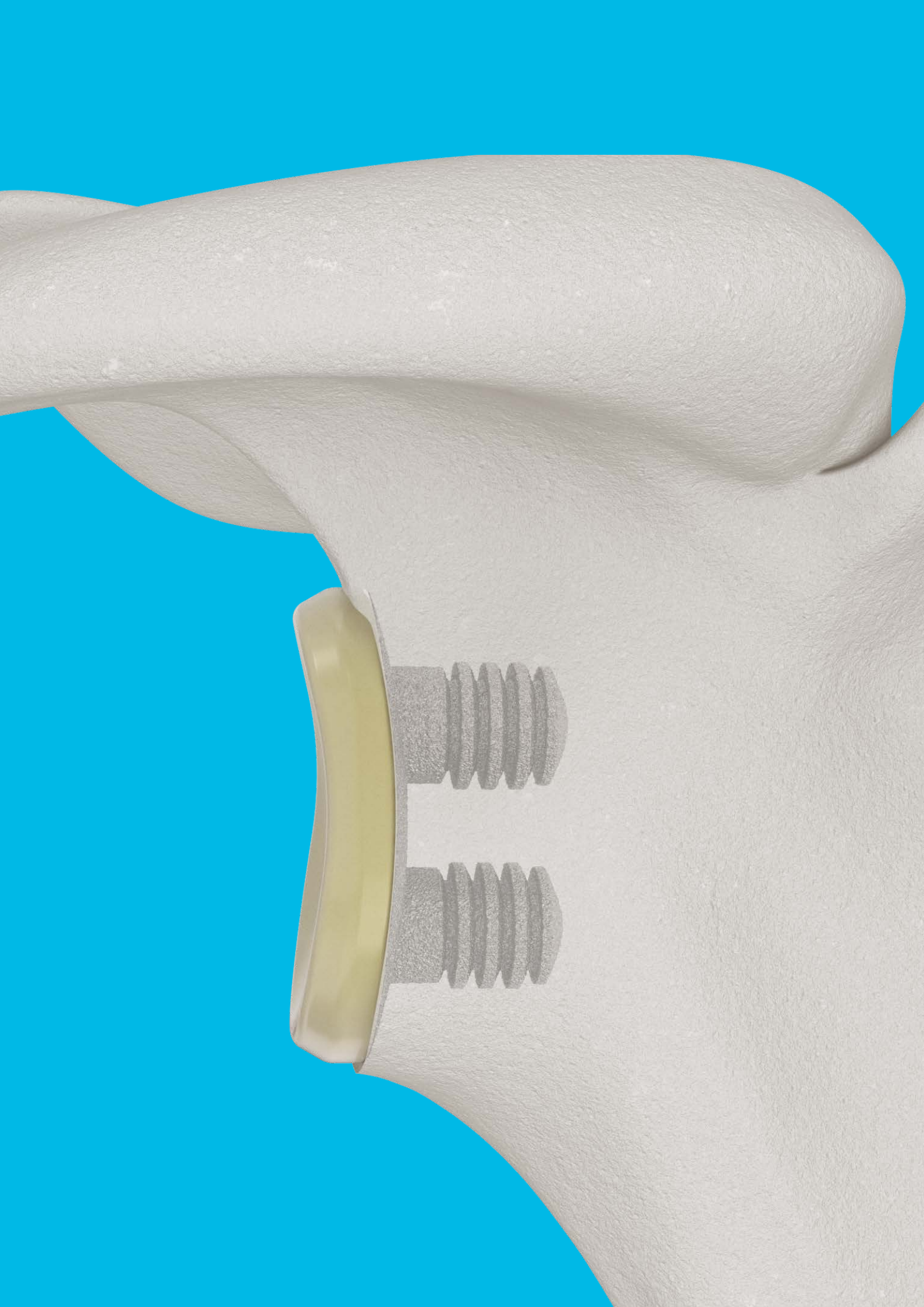
The thin monoblock design of the Affinis glenoid vitamys uncemented enables placement of the joint surface close to the native glenoid bone. This has the advantage that **optimal reconstruction of the joint line** can be achieved, with an anatomical centre of rotation from a physiological perspective. The correct reconstruction of the joint line has a decisive influence on the function and clinical outcome<sup>6, 7, 8</sup>.

Thanks to the compact **monoblock design**, Affinis Glenoid vitamys uncemented additionally eliminates the hazard of a detachment of modular components requiring revision.

Another advantage of this implant is the **reduced surgical time** during the primary surgery as no preparation or curing of the cement is required for the implant anchoring.

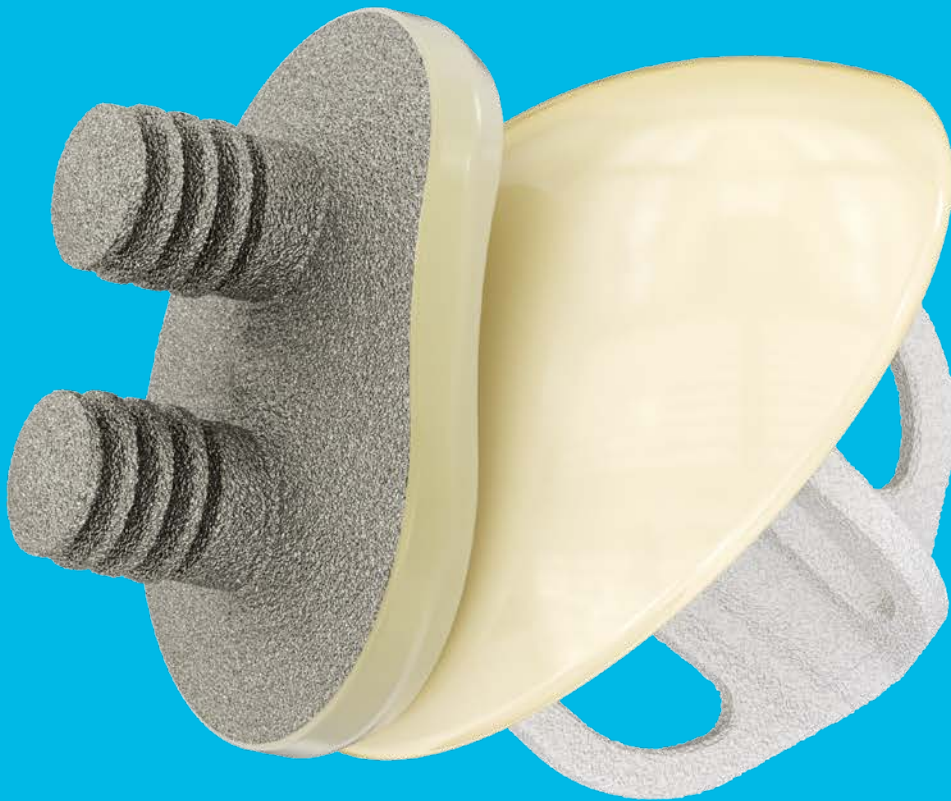






# HYPOALLERGENIC

The Affinis Short Stem, with its large-pored titanium structure and a calcium phosphate coating, already offers an uncemented solution for the anchoring in the humerus. The Affinis Glenoid vitamys uncemented now also enables **uncemented anchoring** on the glenoid side.



The Affinis Short prosthesis in combination with the Affinis Glenoid vitamys uncemented is thus **completely free of nickel, cobalt, chromium and molybdenum ions** and offers implants available **directly as a standard solution** for cases of possible hypersensitivity to these metal ions or bone cement.

In joint replacement, allergic reactions to metal ions are an important issue that concerns patients and physicians equally. For patients with a possible hypersensitivity to nickel, cobalt, chromium and molybdenum ions, implants such as the Affinis Short and the Affinis Glenoid vitamys uncemented, consisting of the materials ceramic, titanium, and vitamys, are an excellent solution.



vitamys



Ceramics



Titanium



# REFERENCES

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## *Preservation in motion*

