It is important to provide the surgeon with a dynamically stabilizing intervertebral implant which makes it possible to reduce the size of the incision to an absolute minimum in order to protect the surrounding tissue (in particular the muscle tissue that contributes to the stability of the spinal column) from the stress associated with the retraction of the surgical wound, which can cause severe necrosis. The patient's recovery after surgery is all the more rapid and the result all the more satisfactory.

To this end, a first aspect of the invention proposes a dynamically stabilizing intervertebral implant comprising:

- a stabilizing wedge adapted to stabilize at least two adjacent vertebrae by interposition between spinous processes of the vertebrae, having a substantially parallelepipedal body which has a defined main axis,

- at least one strap forming a flexible link for fixing the stabilizing wedge to the spinous processes of the vertebrae to be stabilized, said strap having first and second strap portions which each comprise one of the opposite ends of said strap, and said strap having a defined longitudinal direction and a defined strap surface,

- at least one movable assembly adapted to come into engagement with the stabilizing wedge in such a way as to immobilize the strap with respect to the stabilizing wedge by clamping of the strap between the movable assembly and the stabilizing wedge, and

- a locking member for axially locking the engagement of the movable assembly with the stabilizing wedge and thus the blocking of the strap.

According to embodiments, the body of the stabilizing wedge comprises at least one recess through which at least the first strap portion can pass, the at least one recess having a longitudinal axis parallel to the main axis of the stabilizing wedge, and an inner wall

extending parallel to said longitudinal axis of the recess with a defined shape;

- the movable assembly comprises at least one blocking pin having a defined longitudinal axis and a defined shape substantially complementing the shape of the recess, in order to come into engagement with the stabilizing wedge by movement in said recess in the direction of the main axis of the body of said wedge in such a way that the longitudinal axis of the blocking pin:

- firstly coincides with the longitudinal axis of the recess;

- secondly is perpendicular to the longitudinal axis of the first strap portion inside the recess; and

- thirdly is parallel to the surface of the first strap portion inside the recess,

and moreover in such a way that the strap portion inside the recess is immobilized with respect to the stabilizing wedge by clamping of said strap portion forming a flexible link between the blocking pin and the inner wall of the body of the stabilizing wedge delimiting said recess.

The abovementioned main axis coincides with the axis of the posterior approach for the surgical operation to put the implant in place. Since the recess provided in the stabilizing wedge is open posteriorly when the wedge is in the installation position, its longitudinal axis corresponds to the axis of the posterior approach (in contrast, for example, to a lateral access, these terms "posterior" or "lateral" being from the vocabulary used in this field of spinal surgery). The blocking pin can thus be conveniently and usefully inserted by force into the recess along the axis of the posterior approach. The region of intervention and insertion (open surgery) can thus be reduced to the absolute minimum. The invention thus permits a truly minimally invasive procedure and short surgical treatment of the outpatient type.