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1: [Stud Health Technol Inform.](#) 2008; 135: 356-69.  [Links](#)

The SPoRT (Symmetric, Patient-oriented, Rigid, Three-dimensional, active) concept for scoliosis bracing: principles and results.

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The biomechanical action of an orthosis for the conservative treatment of AIS has two goals: correction and stabilization. These goals have been pursued through very well established principles of correction, developed over the years, divided in terms of efficacy (the correct positioning of pushes, as well as through escape ways and proper drivers of the forces and stops) and acceptability (compliance, perfect body design, maximal freedom in the ADL). To achieve all these goals, the Sforzesco brace has been developed through progressive changes and verification. Finally, we discovered we had something new, and summarised it in the SPoRT acronym: Symmetric, Patient-oriented, Rigid, Three-dimensional, active. The SPoRT concept always requires a customised construction of the brace according to the patient's individual requirements. It's possible to apply CAD-CAM technologies, which usually allow us to obtain the best results in this case, but without using pre-built forms stored in databases, as is usually done. Once done, a final test must be made on the patient so as to change the first theoretical project and adapt it in the best possible way, depending on the real interaction between the body and the brace. The results that are today available on the SPoRT concept relate to the Sforzesco brace and necessarily are short-term, because the first treated patients are now reaching the third-year follow-up examination and haven't yet completed their treatments. According to first studies we can state that: the Sforzesco brace is more effective than the Lyon brace after six months of treatment; the Sforzesco brace is equally effective as Risser Plast brace.

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