

[Print this Page](#)

Originally Published [EMDM](#) November 2006

SPECIAL SECTION

Needle-free Injection System Allays Patients' Fear Factor

Christina Elston

[Return to story: The
Companies and Products
of the Year](#)

A pleasing shape and ergonomic design aren't what most people think of when they hear the word "syringe." But the CrossJect single-use needle-free injection system developed by InterDesign S.A.R.L. (Paris) employs exactly those concepts, with tremendous success. The CrossJect received a Medical Design Excellence Award from Canon Communications Ilc, which also publishes EMDM, in June.



An injection system was deliberately designed not to resemble a syringe in order to put needle-phobic patients at ease.

InterDesign CEO Marc Piel says that while no two projects are alike, the designer always plays a major role in a product's success. The company recently studied 40 different projects in a cross section of product areas. "It showed that the cost of design and ergonomics is less than 2% of the selling price of a product, but is responsible for a minimum of 35% of the motivation for buying that product," Piel says.

Design for the CrossJect had to take into account the problem of needle phobia, the risk of accidental needlesticks, contamination and injury risks, the prevention of product reuse, material recycling, and lean and efficient manufacturing. The InterDesign team first conducted an in-depth study into psychological attitudes of potential users of the product. They then created foam models of designs they felt would be most appealing, tested them with potential users, and evaluated the technical feasibility of each one.

Each time this process was repeated, both the technical and perceptual aspects of the product improved. "The use factor was also greatly simplified, test after test, until it finally came down to three steps: take off the cap, apply the injector to the injection site, and press," says Piel. The injection happens automatically, preventing anything from going wrong, he adds.

The resulting single-use product gives no direct access to the medication and can only be used when correctly positioned. Its unusual design also addresses the issue of needle phobia and protects patients against injury.

"The compact shape breaks with the traditional fear-inducing image of a syringe," says Piel. "And the speed of injection—a few hundredths of a second—minimizes the risk of involuntary movement during administration. All this is possible because of the appropriate marriage of ergonomic design and technical expertise.

Copyright ©2006 European Medical Device Manufacturer

Copyright © 2005 Canon Communications, LLC [About Us](#) | [Customer Care](#) | [Advertising Information](#) | [FAQ](#) | [Site Guide](#)