

Design fax

Tech for OEM Design Engineers

Baby Boomers driving new era of medical device chic

Who decided that affordable healthcare products had to be ugly, uninspired, and insensitive? For Boomers, that artificial hip better be, well ... hip

By Jeffrey Kapec, Tanaka Kapec Design Group

For decades, Baby Boomers have been a driving force in industrial design. And as the generation born immediately after World War II moves into retirement, there's no reason to believe they'll stop driving the creative resources of designers. But their focus has shifted from products like the \$200 high-end baby carriages popularized in the 1980s to more age-appropriate products, and this will have a major impact on the design of medical products.

Even with the most advanced medical technology, the physical aging process facing Baby Boomers can't be stopped. Baby Boomers will inevitably experience declines in physical strength, stamina, health, and sensory function. And, like it or not, they will begin consuming more medical devices such as artificial hips, shower seats, walkers, and canes.

But the evidence suggests they will do this with different priorities than previous generations.

For Boomers, aging will not be a process of simply living on in later years with compromises. For a generation that has always considered itself vibrant, active, and fashionable, the focus will be on maintaining a quality lifestyle. Instead of previous generations that moved to the Sunbelt and then into nursing homes, many Baby Boomers will maintain their professional work into their late '60s and early '70s and their active lifestyles even later in life.

In other words, they aren't giving up on middle age, and they have the money to make designers listen, think, create, and cater to their passions. For example, in the future hip replacements won't mean an incremental decline in an active lifestyle. Instead, more and more Boomers will insist on a long-life, high-tech, ceramic hip implant that can withstand a more vibrant sport activity like skiing.

For the medical device industry, this is dictating the need for a new approach to design. And this trend is creating an opportunity to up-sell customers into higher-end, more profitable products. To achieve this, designers serving



A shower spray device to be marketed by leading medical products company GF Health Products, Inc. (Graham-Field) was designed to combine an attractive, modern appearance with innovative and practical new features. The product permits people with little or no hand grip strength, such as arthritis sufferers, to complete two tasks that formerly required a helper. Users simply slide the hook over their open hand and it stays in place. A spring-loaded paddle makes it easy to turn on the water with the application of minimal pressure. For safety, the user can simply brush the handle off their hand if the water temperature is too hot.

the medical device industry will have to adopt a new aesthetic positioning. The pre-conditioned aesthetic of medical products as a necessary evil will have to be replaced with products that feature smart design and are fun and exciting. Boomers don't want products that stigmatize them for their disability. The mundane tub seat placed in the bathtub for security and safety will have to be reconfigured into something elegant, beautiful, and desirable. It will have to be more like a fancy, folding teak shower seat found on a high-end yacht rather than the aluminum and plastic products that consumers reluctantly purchase for their parents or themselves out of necessity.

In the bathroom, as one example, designers will have to think of products in terms of transgenerational design that produces products that are both functional and emotionally desirable to younger and older users. For rehabilitation and safety aid products in and out of the house, the forms, shapes, and character of the product will need to express elegant mobility. In the past engineers and designers could justify a mechanical, clinical design by citing strict functional requirements for healthcare. Products could be successful as long as they met end requirements and were affordable, regardless of what they looked like or how they felt.

This is the utility model, and it produces products and environments that only address the functional needs of disabled people, the aging population, or people with physical and sensory limitations. The utility design also is guided by government dictates, cost, and other regulatory or marketing requirements that are blind to user perceptions and values. But who decided that affordable healthcare products had to be ugly, uninspired, and insensitive? Did someone put that in the design brief because it made sense?

Designers must now think differently. They will need to shift from the utility approach that fixates on function, adaptability, accessibility, and cost, to a values approach that addresses needs, wants, perceptions, desires, and form. Designs based on a values approach recognize and embrace requirements for utility, but they add a new dimension guided by user expectations. Designing according to values starts with a user-sensitive, value-added process that intends to satisfy and delight the user while serving functional expectations.

The transformation of eye glasses illustrates how this paradigm shift will work. In Ben Franklin's time eyeglasses were considered a necessary evil. It was a utility approach to solving a physical disability. Today, eyeglasses have become a fashion statement, as well as a functional device. Designers have been able to transform the uninspired frames and odd-shaped glass lenses into objects that complement the appearance of the wearer. In fact many people wear glass frames simply because they look good. Guess who brought the eyeglasses into the realm of desirable fashion ... inspired designers.

Medical devices will someday fall into the same category, where a sizable percentage of purchases will be based as much on the fact that the products look cool as the utility they provide. We see this trend emerging today as evidenced by our firm's work, which has been driven by orthopedic companies, surgical implant companies, and home healthcare companies asking us to do something innovative with their products. They want cache, elegance, intelligence, and beauty instilled in their products. This affects even the most humble of the disposable items that were simply thought of as "cheap stuff." Medical device manufacturers know that the Baby Boomer market is emerging — and it's big. It will be up to industrial designers to help them get in synch with the Baby Boomers' demand for a new level of value.



Jeffrey Kapec is a principal and Executive Vice President of Tanaka Kapec Design Group, Inc. From 1980 to present time, Kapec has worked on design and product development programs in the following areas: surgical instruments, medical diagnostic equipment, pharmaceutical packaging, drug delivery systems, technical instruments, office equipment, office furniture design, and consumer products. He has been awarded more than 30 utility and design national and international patents in advanced technology, surgical instruments, and mechanical design. Kapec is also a professor of Advanced Three Dimensional Design in the Industrial Design Department at Pratt Institute, New York City. He graduated with honors from Pratt Institute, receiving a Bachelor of Industrial Design.

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