

## **Ergonomics: Trend sweeping throughout home**

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Ergonomics has migrated from the workplace to the home.

For the past decade, people have talked about the ergonomics of the office -- getting the correct chair, picking the right wrist rest, choosing the best mouse.

But now everything from pens to paintbrushes and leaf blowers to lighters are being touted as ergonomically correct.

And it all started with a potato peeler.

In 1989, the Oxo company came out with one that had a fat, rubbery handle with ridges on the side to make it easier to grasp. It looked a bit funny, but people loved it.

"The Oxo Good Grip potato peeler showed that people will pay \$4 for a comfortable potato peeler even though they can get a metal one for 79 cents," said Leslie Lowe Brown, a Georgia Tech professor who teaches product design. "If it feels better, people will pay more for it."

And that's one of the secrets of ergonomics. It's not just something for people with medical problems. Everyone benefits. Bryce Rutter, owner of Metaphase Design Group in St. Louis and an expert on hand-held design, said ergonomics is simply making something easier and less stressful to use. The best ergonomic products strive for universal use and simplicity, Rutter said, meaning almost anyone --from women with long fingernails or children with small hands to the elderly with weak grips -- can use a product.

But just because something has a fat handle or a rubber grip, he said, doesn't mean it's ergonomically sound. And there are no industry standards for the consumer to identify the best products.

"Many of these products are a novelty item more than anything else," Rutter said. "It's almost like a gimmick right now."

Deborah Lechner, a physical therapist who is the president of the Occupational Health Special Interest Group within the American Physical Therapy Association, said if a product is only used occasionally, it probably doesn't matter if it's ergonomic.

"If you're using something a long time, like gardening tools, it's probably worthwhile to go for a more ergonomic design," Lechner said. "But why buy an ergonomic toilet brush? Unless you're a professional housekeeper, how long are you going to be using a toilet brush? A few minutes a week?"

Still, the buying public has been quick to embrace products touted as ergonomically designed.

Oxo started with less than a dozen kitchen gadgets, but now has more than 450 items in its line, including cleaning, garden tools and auto care products. Michelle Sohn, a senior product manager with the company, said initially the company used the same grip on all its products, but found it worked better on some than on others. Now, she said, each item is tested to be sure it can be used easily and comfortably by the widest range of people, and in either hand.

"It takes an average of 15 months to design a new product," Sohn said, "because we spend so much time on testing."

At Oxo, ergonomic products include an oven thermometer with bigger numbers and a clear glass front and back so the oven light shines through, making it easier to read. Rubbermaid has a line of scrub brushes with a ridged thumb rest and tacky, rubber additions to the handles for better grip.

At Maytag, ergonomics means having a washer/dryer with an angled tub and larger door, so it's easier to reach inside and retrieve items. At Echo, which makes commercial and home outdoor power equipment, it means making a quieter leaf blower.

"The focus of ergonomics is to make people forget the product and concentrate on the job," said Stephen Wilcox, chairman of the human factors section, which deals with ergonomics, for the Industrial Designers Society of America. Wilcox, who has his own consulting firm, Design Science in Philadelphia, has worked with Maytag, Paper Mate and Kohler.

Maytag's new line of laundry appliances came out in 1997 with a tub tilted 15 degrees and an angled door that makes it easier to see inside the washer or dryer, said Tony Hair, the director of laundry product management. This fall, a new line of top-loading machines without agitators will debut.

"So now people won't have to reach around the agitator to get out their laundry," Hair said. "People are tired of struggling to see into the bottom of the washer or dryer."

Other ergonomically designed Maytag items include a range with two ovens inside and a refrigerator with the freezer, used less often, in a pull-out drawer on the bottom.

"Ergonomics has become a key point for Maytag," Hair said. "People are looking for convenience, and convenience in appliances is about accessibility."

Even tools are getting retooled. At Echo, the company designed a back-pack styled blower that is half as noisy as a typical power blower and which can be restarted while being worn. Usually, that style of blower has to be placed on the ground to get enough leverage to pull it to start.

"A child can start it, it's so easy to pull," said Steve Herbst, product manager at Echo.

In the last few years, even giveaway pens have boasted the ergonomic touch of a grip, whether ridged, squishy or hard, near the point.

"Different people have different opinions on what's comfortable, whether they like a larger diameter or smaller grip, textured or squishy grips," said Leighton Davis-Smith, director of writing system development for Paper Mate. "But everyone likes grips."

One of Paper Mate's newest products, the PhD Ultra Pen, has a wide, rubberlike contoured grip and a special ink-flow system that requires less pressure to write. Larger diameter pens with grips require less pressure, or squeezing, to use. Less pressure means less hand fatigue. But all that technology and testing comes at a price. The PhD retails for \$8.35.

At Rubbermaid, a new line of ergonomically designed paintbrushes retails for up to 15 percent more, said Dan Smercina, vice president of marketing and new product development of the Shur-Line division, which makes paint application products.

The new brushes have a handle that's set closer to the top of the brush head instead of in the middle of the head, giving the painter more control over the brush head. The handle also has a rubbery, textured casing to make it easier to grip and a thumb rest for better hand placement.

"The public has been extremely willing to pay the higher price for a more comfortable product," Smercina said. "We know if we can get the product in their hands, they'll buy it."

The company's housewares line uses a similar grip for everything from dustpan brushes to toilet brushes.

Brown, who has taught at Georgia Tech for about two years and also has her own design firm -- Echo Visualization in Midtown -- said ergonomic products are gaining popularity as the baby boomer generation ages.

"They started out being designed for the old and infirm," she said. "But the masses bought into it."

People want items that are easier and more comfortable to use -- but people don't always like change. Designers take that into account. At Oxo, they try to keep items familiar-looking, even as they tweak their designs. One of the company's most popular new items is a slanted measuring cup that allows you to see the amount of liquid in it by simply looking down. (Oxo also printed the measurements on the side.)

"Some people are still going to want to hold it up to eye level and look at it," Sohn said, "at least at first."