

REEBOK INTERNATIONAL, LTD.**EasyTone Women's Footwear**Challenger: *National Advertising Division***-- Product testing should reflect consumers' real world experience to ensure performance claims are meaningful.**

Basis of Inquiry: As part of its routine monitoring program, NAD requested substantiation for certain performance and establishment claims made by Reebok International, Ltd. in print and Internet advertising for its EasyTone women's footwear. The following claims formed the basis of the inquiry:

"It's the shoe proven to work your hamstrings and calves up to 11% harder and tones your butt up to 28% more than regular sneakers just by walking."

"Discover up to 28% more of a workout for your butt. And up to 11% more toning in your hamstrings and calves."

"Better legs and a better butt with every step."

Advertiser's Position:

The advertiser responded to NAD's request for claim substantiation by explaining that the Reebok EasyTone shoes are designed for active women aged 25-45 and are the only fitness shoes that incorporate a "balance ball" design (inspired by the BOSU balls) on the soles of the shoes to create instability to each step which, in turn, requires more muscle recruitment than normal shoes in the leg and gluteus maximus ("glutes"). The advertiser noted that it commissioned a study in 2008 at the University of Delaware, conducted by Dr. Todd Royer, Associate Professor and Assistant Chair of the Department of Health, Nutrition, and Exercise¹, and a specialist in exercise science and biomechanics, on the same technology currently found in the Easy Tone shoes. The advertiser asserted that the study was based on years of experience and accepted methodological practice in the field and is consistent with the substantiation provided to NAD in a case concerning another footwear product making toning and strengthening claims.² Dr. Royer's study included five subjects between the ages of 18 and 35 who were randomly assigned to wear EasyTone shoes, regular walking shoes (Reebok ExpressWalk) or no shoes on an indoor treadmill at a freely chosen pace for five minutes, as electrodes placed on key muscle areas elicited electromyography (EMG) ratings which were recorded for each 30 seconds of each minute of testing. The ratings were averaged for each

¹ The advertiser noted that Dr. Royer is the author of numerous published articles on biomechanics and one of the most experienced researchers in the area of exercise science.

² *Citing Earth, Inc. (Earth® Brand Footwear)*, Report #4896, *NAD/CARU Case Reports* (August 2008). In one of the studies, conducted by a biochemist, a total of 31 women between 25 and 45 were split into the test group (Earth shoes had a negative heel) and the control (likely with no negative heel) and wore pedometers for 10,000 steps and were asked not to change their diet or exercise habits (they were measured for body fat and speed improvement while walking on a fixed course). In the second study, published in the *Journal of the American Podiatric Medical Association*, there were 2 groups, the test group wearing a 10 degree negative heeled shoe and the control group wearing a normal sports shoe with a 1.5 cm inclined sole, and used EMG signal analysis to measure muscle activation on key leg muscles. NAD accepted this testing as adequate supported for toning and strengthening claims.

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subject on each shoe condition. The subjects were their own control and thus each subject's results were compared only against her own results which, the advertiser argued, reduced bias factors and extraneous variables (e.g., body type, gait) and Dr. Royer controlled for possible noise. The advertiser noted that while the study is not published, Dr. Royer's expertise in this area compensates for this drawback, adding that NAD has never disqualified a study because it was not published and thus should accord as much credence as the studies reviewed in the Earth Footwear case.

The advertiser explained that Dr. Royer assessed the duration and amplitude (or the strength) of the muscular activation as the recorded reading would be the average for each muscle for each subject for each shoe after which he found the average reading for the calf muscle for all subjects wearing each shoe. Dr. Royer reported that average muscle reading for the hamstring was 1.190 microvolts (mv) for the EasyTone shoes versus 1.072 mv for the regular walking shoes, a difference of 11 percent; for the calf muscle, 0.570 mv for EasyTone versus 0.513 mv for regular walking shoes, a difference of 11 percent; and for the glutes, 1.821 mv for the EasyTone compared with 1.420 mv for the regular walking shoes, a difference of 28 percent, which he characterized as "compelling evidence for greater muscle activity." Dr. Royer also noted increases in activation duration of 14 percent, five percent and 14 percent for the glutes, hamstrings and calves, respectively. Taking these results as a whole, Dr. Royer concluded "[t]he increased muscle activation amplitude and/or activation duration seen in these muscles during the EasyTone shoe condition suggest the potential exists for both greater muscle force generation and greater metabolic energy expenditure." The advertiser referred to William McInnis, Reebok's Head of Advanced Innovation, who explained that figures for EMGamp (how hard a muscle is working) and EMGact (how long the muscle is working) speak to muscle toning, strengthening and calorie burning and together show that the certain muscles are working harder and longer. He also noted that the data also indicates that the less stable design of the EasyTone sole makes it more challenging to perform the muscle activity in each step. The advertiser noted that it tried to take a conservative approach by basing its efficacy claims on EMGamp data without trying to account for the incremental benefits of increased activation duration. The advertiser interpreted Dr. Royer's final comment as a confirmation that EasyTone shoes showed a clear incremental toning benefit, but only suggested a calorie-burning benefit.

The advertiser argued that its advertising, which shows women actively engaging in everyday activities, communicates the benefit delivered by EasyTone shoes as one goes about these activities and that it is supported by its study, which was reliable and highlights the average of the results – noting that its claims are qualified by the phrase "up to" before the recitation of the percent differential. As for its toning and "work out" claims, the advertiser noted that EMG testing was validated in the Earth Footwear case and that there is no reason to invalidate it in this case. The advertiser argued that the claim "better legs and a better butt with every step" is not an establishment claim but, rather, a general toning and strengthening claim which is supported by the study.

Decision:

Millions of women struggle to find time to exercise. Consequently, a walking shoe that promises to deliver tightening and toning in the legs and glutes by simply walking around in them during the course of the day is very appealing. It is against this backdrop that NAD assessed the advertising claims at issue in this proceeding. The advertiser noted that while its current advertising does not include the claim "Discover up to 28% more of a workout for your butt. And up to 11% more toning in your hamstrings and calves," it reserved the right to make these claims in the future and noted that similar quantified performance claims are being made in its current advertising. As such, NAD reviewed the quantified claims on the merits.

The advertisements depict young women who are thin and in very good shape, as they are shown from the waist down wearing either underwear or very short shorts that accentuate their glutes with the claims such as "Men will be speechless. Women will be jealous. And no one will know that the reason's on your feet. Discover up to 28 percent more of a workout for your butt. And up to 11% more for your hamstrings and calves." Aspirational advertising is pervasive for products like these which promise the enhancement of one's appearance without effort. While NAD does not believe consumers can reasonably expect to attain the figures of the women depicted in the advertisements simply by wearing EasyTone sneakers alone, the target audience of the advertisements (active women aged 20-50) can certainly take away the message that they can achieve a noticeable difference in the toning of their calves, hamstrings and glutes by wearing these shoes while doing routine daily tasks. Given that there is universal consensus in the scientific community that a healthy diet and regular exercise program are necessary to achieve and maintain a healthy body, NAD was concerned by claims that women can achieve these results simply by switching to the advertised walking shoe.

Turning to the study offered to support these claims, NAD noted that it was an independent study conducted under the guidance of an expert in exercise science and biomechanics and that Dr. Royer attempted to control for bias and variability by having the subjects serve as their own control and having them walk on a treadmill with sensors attached to the muscles featured in the advertisements to determine the toning abilities of the EasyTone shoe. However, NAD observed that this was a very small scale study both in number of participants and duration of the study. While NAD appreciates that this product category has many players actively fighting for market share, this alone does not render a very small scale and short durational study reliable or representative of the target audience.³ Although quantified results were measured in the calves, hamstrings and glutes, Dr. Royer ultimately concluded that "[t]he increased muscle activation

³ NAD noted that the advertiser referred to certain sports medicine studies with small sample sizes in response to NAD's concern about the small sample size in Dr. Royer's study. These studies have no bearing on this case – one study (with seven subjects) determines the impact of long-term practice of sports impacts on the rate of telomere [a region of repetitive DNA at the end of a chromosome] shortening in skeletal muscle and another (with six subjects) assesses the influence of carbohydrate-electrolyte solution on muscle glycogen use and intermittent running capacity after consumption of a carbohydrate rich diet. The advertiser also cites to a study with eight subjects conducted by its competitor, Skechers, on its Shape-Up shoes; NAD notes that this study concerns a product that is not the subject of NAD's review.

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amplitude and/or activation duration seen in these muscles during the EasyTone shoe condition *suggest the potential* exists for both greater muscle force generation and greater metabolic energy expenditure.” (emphasis added) NAD was concerned that the promise of noticeable results may not have been supported by reliable evidence. Results that suggest potential toning are clearly insufficient to support unequivocal claims that you *will* “tighten and tone with EasyTone” and “get a better butt.” Further, one iteration of the advertising includes a qualification as to the efficacy of the product (“EasyTone encourages up to 28% more toning in your glutes and up to 11% more toning in your calves and hamstrings”) and this disclosure appears only after a very large headline claim “TIGHTEN AND TONE WITH EASYTONE.” It is also important to note that while a crossover study design, as is the case here, can allow for a smaller sample size⁴ because each subjects serves as his/her own control, this alone does not demonstrate that a sample size of five subjects is sufficiently representative of the universe of consumers to whom this product making broad performance claims is targeted.

It is well-established that tests offered to support product performance claims must reflect real world conditions.⁵ Here, the only testing that was conducted was on a treadmill for a five-minute period of time. In Earth Footwear case, there were two studies, one of which included 31 subjects who wore pedometers three times a week (walking 10,000 steps [four miles]) each time for four weeks which NAD found reflect real world conditions. While the advertiser cites to this case as support for its claims, it is important to note that the technologies underlying and the design of the Earth footwear and EasyTone shoes are not the same, and in that case, claims at issue were different (primarily weight loss claims along with a toning/strengthening claim) as were the measurements taken (maximum and minimum hip, trunk, hip, knee and ankle joint angles, range of motion, stride cycle time, cadence and stride length).

Given that the testing submitted in support of the advertiser's performance claims only involved five subjects and that the researcher concluded only that the results suggest the shoe design may potentially produce toning, NAD found it insufficient to support the advertiser's quantified and general strengthening and toning claims and recommended that they be discontinued.

Conclusion:

NAD determined that the advertiser's study did not provide a reasonable basis for its quantified or general strengthening and toning claims and recommended that they be discontinued.

Advertiser's Statement:

⁴ McNeil Consumer Healthcare (Zyrtec®), Report #4903, *NAD/CARU Case Reports* (August 2008).

⁵ See Daimler Trucks North America LLC (Freightliner Cascadia), Report #4905, *NAD/CARU Case Reports* (September 2008) (noting that many factors impact on a vehicle's fuel efficiency, rendering quantification of fuel savings difficult and that given that tractor-trailers on the open road encounter wind from all directions, testing only for head-on winds is not reflective of real world conditions which can impact on a truck's actual fuel consumption and, by extension, fuel efficiency).

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Reebok International Ltd. appreciates the NAD's time and energy devoted to this matter. We are pleased that NAD recognized that the University of Delaware study was independent, was conducted by an expert in the relevant field of exercise science and biomechanics, and appropriately used EMG technology. Further, we are pleased that NAD observed that efforts were made to control for variables. Although we disagree with the NAD's conclusions, we support the self-regulatory process and will take the NAD's findings into account in future advertising. (**#5263 AMU, closed 12/13/2010**)