

SKECHERS
Fitness Footwear
Shape-ups
SHAPE UP WHILE YOU WALK

**THE BENEFITS OF SKECHERS SHAPE UPS SHOES ON WEIGHT LOSS,
BODY COMPOSITION, GLUTEI STRENGTH, AND LOW BACK ENDURANCE**

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JUNE 2009

During a six-week trial, we tested SKECHERS Shape Ups shoe wearers on weight loss, body composition, glutei strength, and low back endurance. Participants were instructed to wear Shape Ups shoes during their normal daily activities and typical walking program, while also maintaining their usual diet and exercise strategies.

All participants were assessed at the beginning of the trial and every two weeks until its conclusion. All data was recorded, charted and analyzed.

The results indicated:

- an average weight loss by our participants of 3.25 pounds
- an overall average improvement of body composition (reduction of body fat) of 1.125%
- an average improvement of glutei strength by 41%
- an average improvement of low back endurance by 37%

As the trial was only six weeks, we could anticipate an even greater improvement in body weight and body composition with continued use of the shoes. Glutei strength and low back endurance both greatly improved. One can assume that Shape Ups' dynamic rolling bottom, soft foam insole and dual-density midsole can target and condition the postural and stability muscles of the hips and lower back.

THE BENEFITS OF SKECHERS SHAPE-UP SHOES ON WEIGHT LOSS, BODY TONING AND THE MANAGEMENT OF LOW BACK PAIN RELATED TO GLUTEAL STRENGTH AND LOW BACK ENDURANCE

A CLINICAL CASE STUDY

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ABSTRACT:

We live and walk in a modern world of flat, hard and predictable surfaces, one that never challenges the balance and stability mechanisms of our feet, hips and lower back. Because of this, it has been suggested that our postural muscles from the feet up through the hips and lower back become weak or deconditioned. This hard and unforgiving surface can also create daily stress on the joints of our feet, legs and spine. Skechers has developed a shoe with a dynamic rolling bottom, soft foam insole and a dual-density midsole designed to create a soft and uneven surface to induce engagement of the postural muscles while reducing stress on the related joints.

We have selected ten women to wear the **Shape-up** shoe for a trial of 6 weeks during which we will measure body weight, body composition, glutei strength and low back endurance.

OBJECTIVE:

To evaluate the benefit of Skechers **Shape-up** shoes on:

1. Weight loss
2. Body composition
3. Glutei strength
4. Low back strength/endurance

METHOD:

Ten female participants will be tested. We will begin the study by getting baseline measurements in body weight, body composition, supine single leg hip extension and prone static back extension. Each participant was given a specific demonstration and instructions on proper use of the shoes. Each participant was then instructed to wear the shape up shoes daily starting with just 25 minutes to allow their bodies to adjust to the demand. Participants were then advised to work up to wearing their shoes during their normal daily activities in work and at home. Participants were advised to maintain their normal daily activities during the test (i.e. they will be advised not to begin a new diet or exercise routine)

The study began on the week of May 18 with initial baseline data measurements and ran for six weeks. At two weeks in to the study we again took data measurements duplicating the initial tests. Each participant was asked to share subjective feedback as far as usage, comfort and physical symptoms. The participants were again tested at four weeks out again duplicating the tests and again asking for subjective feedback. Finally at six weeks we retested all of the participants for our final data collection.

Each participant was tested using the following methods:

- 1.) Body weight using a calibrated Seca scale
- 2.) Body composition using a Lange Skinfold Caliper from Beta Technology, Santa Cruz, California, via four point skin fold measurement sites:
 - 1.) Biceps: A vertical fold on the front of the arm over the biceps muscle halfway between the shoulder and the elbow.
 - 2.) Triceps: A vertical fold on the back of the upper arm, with arm relaxed and freely at the side, again the skinfold is taken halfway between the shoulder and the elbow.
 - 3.) Subscapular: A 45-degree fold taken 1-2 cm below the inferior angle of the scapula.
 - 4.) Iliac crest: A 45-degree fold taken just above the iliac crest medial to the axillary line.
- 3.) Glutei strength assessment using dynamic supine single leg floor bridge. The participant is instructed to perform as many reps on each side as they can until failure. Each rep is observed to make sure the participant does not come to a complete rest at the bottom and clears the height of the opposite thigh at the top. Failure is recorded when the participant cannot bring the active thigh parallel to the static thigh or the participant comes to a rest on the floor.³
- 4.) Low back strength/endurance using static back extension test. (Sorensen Test) Each participant is instructed to lay prone across the end of a therapy table with their anterior superior iliac spine measured at the edge of the table. The test is a timed isometric hold. The examiner stabilizes the patient's lower body while the patient maintains upper torso extension. The total time the patient is able to maintain back extension is recorded. Failure is when the participants' upper torso drops below the horizontal level of the therapy table.³

RESULTS:

Eight of the ten participants completed the study. Two participants discovered that they were pregnant during the study.

- 1.) Body weight
- 2.) Body composition
- 3.) Glutei Strength
- 4.) Low Back endurance

We have charted all of the measurements for statistical analysis.

1.) Body Weight:

PARTICIPANT	BASELINE	TWO WEEK	FOUR WEEK	SIX WEEK
1	170	166	164	167
2	129	128	128	126
3	160	158	156	156
4	133	131	131	130
5	142	143	139	141
6	166	163	161	161
7	124	124	124	125
8	188	185	184	182

2.) Body Composition:

PARTICIPANT	BASELINE	TWO WEEK	FOUR WEEK	SIX WEEK
1	36.58	37.25	35.12	35.12
2	29.51	26.96	26.96	26.96
3	38.31	37.58	36.81	36.81
4	29.46	29.46	29.46	29.46
5	34.33	35.12	34.33	34.33
6	31.65	30.62	30.62	29.51
7	21.90	21.90	21.90	21.90
8	39.66	39.00	39.00	38.31

3.) Glutei Strength:

PARTICIPANT	BASELINE	TWO WEEK	FOUR WEEK	SIX WEEK
1	R: 23 L: 20	R: 29 L: 30	R:33 L: 31	R: 35 L: 31
2	R: 20 L: 20	R: 24 L : 25	R: 25 L 25	R: 28 L : 27
3	R: 16 L :15	R: 14 L: 21	R: 25 L:29	R: 25 L: 27
4	R: 30 L: 33	R: 33 L: 41	R: 37 L 42	R: 39 L: 44
5	R:19 L: 21	R: 17 L: 17	R: 19 L: 22	R: 24 L:24
6	R:17 L:14	R: 22 L: 21	R: 24 L: 21	R: 27 L: 24
7	R: 22 L :19	R: 19 L: 21	R: 24 L: 22	R: 26 L :26
8	R: 11 L: 9	R: 10 L:10	R: 11 L:14	R: 15 L: 14

4.) Low Back Endurance:

PARTICIPANT	BASELINE	TWO WEEK	FOUR WEEK	SIX WEEK
1	27:00 sec.	39:00 sec	44:00 sec	47:00 sec
2	91:00 sec	93:00 sec	94:00 sec	99:00 sec
3	51:00 sec	69:00 sec	67:00 sec	67:00 sec
4	94:00 sec	115:00 sec	124:00 sec	129:00 sec
5	71:00 sec	70:00 sec	77:00 sec	93:00 sec
6	62:00 sec	69:00 sec	78:00 sec	79:00 sec
7	54:00 sec	67:00 sec	77:00 sec	81:00 sec
8	31:00 sec	34:00 sec	41:00 sec	63:00 sec

COMMENTS:

Weight loss:

The greatest single weight loss achieved was 6 pounds, with an overall average of 3.25 pounds.

Body composition:

Body composition was reduced by an average of 1.125 percent.

Glutei strength:

The greatest gain in glutei strength was close to a 53% increase. The average glutei strength gain was 41% with all participants showing a statistically significant gain.

Low back endurance:

Again, all participants showed a statistically significant improvement in low back endurance, with a 37% average overall improvement.

The results show improvement within all data variables with the best improvement coming in gluteal strength and back extension endurance. With body weight and body composition we could project out further gains over a longer period of time. Each subject shared a different level of daily activity with some simply wearing the shoes throughout their day while others were actually going to the track for a walking workout. After collecting some samples of subjective feedback it was hinted that the participants who used the shoes during their workouts realized the better body weight and composition gains.

Some other subjective comments from the participants were as follows:

One subject who is generally deconditioned wore her shoes for well over four hours the first day of use and experienced low back and neck soreness. When she backed off and implemented the shoes more gradually her neck and back discomfort quickly subsided. This underscores the importance of proper implementation when first using the shoes. The most consistent subjective feedback was a "good sore" in their calves and glutei which subsided as they gained fitness. Most participants felt "stronger" in their low back. All participants felt the shoes were very comfortable and all liked the styling.

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