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Brief exercise for weight loss

Submission date
13/03/2018

Recruitment status
No longer recruiting

Registration date
17/04/2018

Overall study status
Completed

Last Edited
24/04/2019

Condition category
Nutritional, Metabolic, Endocrine

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Over 70% of US population are overweight, and almost 40% are categorically obese based on body mass index (BMI). There are numerous programs, diets, and exercise regimes, but these are inadequate because obesity continues to rise. The purpose of this study is to determine if a unique 2-minute Energy-surge exercise routine (performed five times/day) is effective in reduced subjects' weight and girth sizes.

Who can participate?
Healthy adults aged 18-65 years who are obese (have a BMI of 30 or more).

What does the study involve?
Healthy obese subjects were randomly assigned to the Experimental or Control groups. Experimental group participants were taught how to make many movements such as riding a stationary bicycle or lifting dumbbells into an 'Aerobic-surge' exercise at or above 75% of calculated maximum heart rate. They were taught to perform these exercises for 2 minutes 5 times per day. Control subjects were simply told to exercise more. No dietary changes were made for either group.

What are the possible benefits and risks of participating?
The potential risks included joint injuries from exercise or falling and worsening of undiagnosed heart problems. The potential benefits included decreased weight and body size, improved appearance and self esteem, decreased hypertension and disease, and increased ability to perform activities of daily living.

Where is the study run from?
Participants were screened, trained and measured in Galveston, TX. They did the exercises at home.

When is the study starting and how long is it expected to run for?

Who is funding the study?
There is no external funding for the study.

Who is the main contact?
Dr FB Willis, DocWillis@yahoo.com

After being briefed on the study, Subjects: Fifty four adults were recruited for this study in Austin, Abilene, and Galveston Texas, USA. All subjects understood and completed written informed consent as required by the IRBs.

Subjects were then screened for exclusion criteria such as cardiovascular diseases and four subjects were withdrawn from the study. The remaining were were randomly categorized as Experimental (N=25 receiving treatment) or Control (N=25).

After being weighed, measurements of ten body circumferences were measured (neck, chest , waist hip, etc,). Experimental subjects were taught how to perform an "Aerobic-surge" exercise at 75% of their calculated maximum heart rate with different exercises (climbing stairs, stationary bicycle riding, etc.). They were instructed to perform this Aerobic-surge five times/day in this 60-day study.

Joint injuries from exercise or falling
Exacerbation of undiagnosed cardiac anomalies
4.2 Potential Benefits
Decreased weight and body mass
Increased appearance and self esteem
Decreased hypertension and disease
Increased activities of daily living

Contact information

Type(s)
Public

Contact name
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Additional identifiers

Protocol serial number
2016.1

Study information

Scientific Title
Brief, aerobic-surge exercise for weight loss: a preliminary randomized, controlled trial

Study objectives
The purpose of this current study was to determine if a frequent, high intensity, 2-minute aerobic-surge exercise routine (5/day) was effective in reducing subjects' weight and girth sizes.

Ethics approval required
Old ethics approval format

Ethics approval(s)
McMurry University IRB and Galveston Research IRB, 10/1/2016.

Study design
Randomized controlled trial

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Obesity

Interventions
The participants were randomly categorized as Experimental (N=25 receiving treatment) or Control (N=25). After being weighed, measurements of ten body circumferences were taken. Experimental subjects were taught how to perform an "Aerobic-surge" exercise at 75% of their calculated maximum heart rate with different exercises (including supine scissor kicks, running in place, stationary bicycling, jumping jacks, biceps curls, triceps extensions, medicine ball swings, climbing stairs, etc). They were instructed to perform this Aerobic-surge for 2 minutes five times /day in this 60-day study. (The goal for Energy-surge was 5/day but 4/day completion was expected.)

Intervention Type
Behavioural

Primary outcome(s)
Changes in weight and body circumferences (neck, shoulders, chest, upper arm, lower arm, wrist, waist, hips, upper thigh, above knee, calf, ankle). The weight and body circumferences were measured at enrollment and after 60 days (+/-5 days) by the same research assistant under the supervision of the principal investigator.

Key secondary outcome(s))
Compliance assessed by weekly communication with participants and measured as the proportion who completed the exercises at least 4 times per day.

Completion date
01/05/2017

Eligibility

Key inclusion criteria
1. BMI >30 kg/m2
2. Aged 18-65 years

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Upper age limit
65 years

Sex
All

Key exclusion criteria
1. Cerebrovascular accident or traumatic brain injury
2. Cardiovascular pathologies, including uncontrollable hypertension, atrial fibrillation and history of myocardial infarction
3. Rheumatoid arthritis
4. Pregnancy
5. Hypothyroid secretion
6. Hypogonadal syndrome
7. Diabetes mellitus (type 1 or 2)
8. Other weight loss protocols, diets, or medication

Date of first enrolment
15/01/2016

Date of final enrolment
15/06/2016

Locations

Countries of recruitment
United States of America

Study participating centre
Galveston Clinical Research
6341 Stewart RD #115

Galveston
United States of America
77551

Sponsor information

Organisation
None

Funder(s)

Funder type
Not defined

Funder Name
NONE

Results and Publications

Individual participant data (IPD) sharing plan
As of 09/04/2018)
Patient files were lost in the Hurricane Harvey floods but data sets may be acquired by contacting Dr Willis directly for the next 7 years.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/01/2018		Yes	No
Participant information sheet		09/04/2018	17/04/2018	No	Yes
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes