Exercise may increase Memory

Scientists have been working to understand precisely how exercise improves memory, at a molecular level, as well as whether all types of exercise, including weight training, are beneficial.

The human study:
Published in The Journal of Aging Research, from scientists at the University of British Columbia.
- Women, ages 70 to 80
- With mild cognitive impairment

PROCEDURE:
- Randomly assigned their volunteers to six months of supervised exercise.
- One group of women lifted weights twice a week.
- The second group briskly walked.
- The third group was the control, the women just stretched and toned.

RESULTS: After 6 months
- The women in the toning group scored worse on the memory tests than they had at the start of the study.
- Women who had exercised, either by walking or weight training, performed better on almost all of the cognitive tests.
- Women who had walked showed greater gains in verbal memory than the women who had lifted weights.

The animal study:
RESULTS:
- The brain, in rats that ran, showed increased levels of a protein known as BDNF, or brain-derived neurotrophic factor (which is known to support the health of existing neurons and coax the creation of new brain cells).
- The rat weight-trainers’ brains did not show this increase, however, did have significantly higher levels of another protein, insulin-like growth factor (promotes cell division and growth for new neuron survival).

CONCLUSION:
According to Teresa Liu-Ambrose, an associate professor in the Brain Research Center at the University of British Columbia, “It seems that each type of exercise “selectively targets” different aspects of knowledge, probably by sparking the release of different proteins in the body and brain.”

The difference in effect of each type of exercise were small, she says, while the effects of exercise — any exercise — on overall cognitive function were profound. She says, “We saw actual improvements, an outcome that, if you’re waffling about exercising today, is worth remembering.

New York Times article: Getting a Brain Boost Through Exercise
By: Gretchen Reynolds

Dates:
- May 3rd- Commencement
- May 12th- Summer Classes begin
- May 27th- Memorial Day

http://www.mystartimes.org/jsp/7490
4 Reasons to run on the Beach!

1. You will develop more strength in your lower leg muscles. Sand shifts beneath your feet as you run, your ankles, arches, and calves are all engaged and become stronger. A study published in the Journal of Strength and Conditioning found that sand running increased the circumference of calf and thigh muscles and resulted in the most physiological and performance changes in 51 young men over the course of six weeks.

2. Running on sand burns more calories. According to the European Journal of Applied Physiology and Occupational Physiology, people who walk or run on sand burned between 1.2 and 1.8 times more calories per mile on each run. That is about 20-80 extra calories per mile.

3. Increased coordination and better balance. The uneven surface of sand not only activates the muscles of your lower body but also engages the upper body as you try to maintain your balance. Your core abdominals, back and shoulders all get a workout as you move through shifting terrain. Over time, this results in more strength and fluidity of motion, giving you better control over your body.

4. Running on sand is easier for your joints. Running on a softer surface gives joints and muscles a break from the pounding they take on asphalt or pavement. If you’ve ever seen a volleyball hit the sand, you know it does not bounce, because sand absorbs nearly 100% of the impact. Every time your foot hits the sand, the impact force is minimal, so your body is subjected to less strain.

To read more: http://www.mademan.com/mm/5-benefits-running-sand.html