

The Saddle Club Gazette

WHY WARM UP?

THE EFFECT OF A WARM ON HUMANS

Some of you may wonder why we do warm up? It seems like a waste of time...who wants to do all those trot circles when we can be jumping or riding our dressage tests? Those of you who can warm up on your own probably *think* you know why we warm up: so we don't hurt our horses, so we can stretch out their muscles. Yes, however the warm up is not just for your horse, it is also for you.

To show how this works, I conducted an experiment. A riding warm up is essentially full body exercise and your lesson is usually specific, so in my experiment I asked the question: does exercise affect the rate of clothespin squeezing. Exercise being the "warm up" and clothespin squeezing being the "lesson."

My experiment procedure and report are as follows:

Problem Question

Does exercise affect the rate of clothespin squeezing?

Hypothesis

If a person exercises before they squeeze the clothespin, then they will be able to make more clicks, thus able to squeeze at a faster rate.

Materials

1. Stop watch
2. Two clothespins
3. Three test subjects

Dependent Variable

The number of pin clicks per minute is the dependent variable.

Independent Variable

The independent variable is exercise vs. no exercise.

Controlled Variables

- Type of exercise and intensity (jumping jacks)
- Same amount of exercise- one minute
- Same clothespins

Procedure

1. Have three test subjects doing two trials each.
2. After resting for five minutes, subjects squeeze a spring-type clothespin in-between their thumb and index finger as fast as they can for one minute. Record the number of clicks per minute in the data table.
3. Then both subjects complete one minute of jumping jacks and immediately take the same clothespin and squeeze as fast as they can for one minute. Record the number of clicks per minute in the data table.

Data Table

Trials	Resting	After Exercise
1	109	142
2	127	136
3	112	128
Average	116	135

Analysis of Data Gathered

According to the data table there was a *nineteen-click* difference between the resting trial and the exercise trials. This shows that with exercising, the body has been "warmed up" and capable of exerting itself further. After one minute of jumping jacks there is an average nineteen increase in clicks, which is due to the increase of blood flow prior to the trial.

Conclusion

The expected results of this experiment were that if a person exercises before they squeeze the clothespin, then they will be able to squeeze at a faster rate. The results of this experiment showed that exercise could increase the rate at which a person can squeeze a clothespin. These results supported the hypothesis. Some errors in this experiment were that the test subjects had a bias to prove their own hypothesis true. To fix this, a blind test should have been performed so that the subjects didn't purposely try to speed up the rate of their clicks during the second trial. Also, in the second trials, the clothespins used were switched. The clothespin may have affected the rates if one happened to be easier to squeeze than the other. In the second trial some subjects used three fingers to squeeze the clothespin rather than just the thumb and forefinger. Lastly, if the person is not feeling well that may make their rate of squeezing slower.

MAKING CONNECTIONS

Now, how does this relate to warming up? For humans, you can see that even a little bit of full body exercise can catalyze and enhance the performance of just our fingers. So...apply that to our lesson plans: the experimental jumping jacks are the equivalent our holistic warm ups and the clothespin squeezing would be what our lessons are.

Whether our warm up serpentine help with our corners or our annoying canter haunches in help with eventual turn on the forehands, warm ups are just as important as the lesson and should be thoroughly completed and analyzed.

THE WARM UP AS THE LESSON

Some people may be familiar with spending an entire lesson only doing warm up exercises. It sounds so boring but there are real benefits. Imagine, if you will, your favorite singer, she or he kills it on stereo or in concert...but that doesn't just happen naturally. Like anyone who has a talent, that singer must practice it, maybe speeding hours at a time rehearsing the same measure over and over again. Like dancer practicing levés or a doctor memorizing formulas, an equestrian must practice basic circles and straight lines and all that jazz.

One particular day when Sunny and I had been having trouble finding my "round." We spent the entire lesson warming up, but it wasn't wasted. We worked on all sorts of different exercises that weren't specifically related to getting round such as bending with spirals, serpentine and lateral work; finding straight such as straight lines to circles and back again. We also worked on *me*, doing different stretches, no stirrups etc. By the end of the lesson I discovered that after piecing all these exercises together, I *had* found my round! I needed to warm up myself and my horse completely in order to nail down something more difficult and specific.

RESOURCES

There are some books and links that I highly suggest for those of you who either warm up on your own or do practice rides.

- *101 Dressage Exercises for Horse & Rider*, Lisa Wilcox
- *101 Jumping Exercises for Horse & Rider*, Linda Allen
- <https://www.equisearch.com/articles/stein41503>
- <https://www.horselistening.com/2013/11/10/five-components-of-the-ultimate-warm-up-in-horse-riding/>

THANKS FOR READING THIS ISSUE OF THE MEDICAL JOURNAL!