



For Better or Worse...Muscle Memory

By Chris Casteel

“It’s all about training your kids properly, giving them the tools necessary to do all the wonderful thing designers dream up, and it’s TRAINING that will elevate your program from a mere collection of counts, into a wonderful effective masterpiece.”

Richard Kramer, WGASC V.P. of Adjudication

I must start off by stating that Richard Kramer actually contributed this quote in response to a previous article. However, once I started brainstorming for this article, it seemed a perfect starting point for a discussion on muscle memory. Thanks Richard.

As an instructor muscle memory is either your friend or your enemy. It is kind of like those infamous words ‘for better or for worse’; no matter how you train your team, you are perpetually joined with this physiological reality. Thankfully, the next phrase ‘till death do us part’ does not apply!!!!

So, let’s get started – what in the world *is* muscle memory??? It is a partnership of sorts between the muscles of the body and the brain. The more an individual practices a specific skill, a transition occurs that transforms the skill from a conscious action to an automatic action. Neural pathways are created after *repeatedly practicing* an action which eventually becomes muscle memory (Meeks, 251). In respect to our activity, muscle memory begins in the basics block and continues in the instruction of choreography. However, you will see its greatest benefits in the competitive arena.

I am sure that the majority of instructors have heard the phrase, “Do we really have to do this *again?*!” from their students. In regards to establishing muscle memory the response should be a resounding “YES, ABSOLUTELY, AFFIRMATIVE, and AMEN!” One of your goals should be to establish this correctly and consistently in every member of your team. Hopefully the following steps will help break down this process.

1. Be Specific:

Due to the fact that muscles become familiar with various aspects of equipment or movement manipulation over time, an instructor must make sure that the training is such that each and every performer is learning the same and appropriate technique over time. Remember how I used the phrase ‘For better or for worse’? If you are not consistently specific with your instructions and expectations regarding all aspects of technique, the concept of muscle memory will come back to bite you in the ... (and generally it will happen during a competitive performance). Ambiguous and inconsistent instruction leads to variations within performers. Considering the fact that color guard is a team activity – variation in technique is not your friend! If you happen to have variations in technique that are practiced over time; well, this is where the ‘worse’ side of the phrase

comes in. We have all witnessed the rifle toss in which the performers clearly understand the effect of the toss within the show; however, their training does not reflect consistent muscle memory to support the toss. So, consider this license to be picky and specific with your guard.

2. Repetition:

Repeatedly rehearse basics – despite the pleas of your students. Make sure that the basics block includes phrases of choreography that you intend to implement within shows. So, if you have a 16 count phrase that you know will be used in shows...make it a part of your basics block. It takes approximately 4 weeks for the body/brain to establish muscle memory. Be patient in this process. Expect monotony, because you will spend a large amount of time on a small amount of counts. You need to realize that this is simply not going to happen overnight. In fact, if this is a new concept to you, you may have some work to do in correcting faulty technique in your performers. Whatever the case, do not give up and keep pushing the repetitions.

3. Patterns:

It is important to understand that our brain likes patterns of all sorts. In fact, it strives to find patterns in every action that we accomplish in our lives. Believe it or not, even brushing your teeth is a muscle memory that has been established through a sequence of patterns in the brain. I am sure not many of you think about the exact way you brush your teeth, but I would venture to guess that there is a specific process and duration that you perform this action each time (Wow! Did I really just talk about dental hygiene in a color guard article - awesome!!). OK, back on topic. Establish patterns in your choreography that the brain can embrace. This will make the cognitive part of muscle memory transcend the rehearsal into the performance.

Finally, during a performance, your students will have a ton of information streaming into their brains for processing. Because of this, it is inevitable that there will be some functions of performance that occur automatically without thinking. This is not to say that once muscle memory is established your performers can cease to think during a performance! To suggest this would be insanity. I am simply stating that if there are moments of ‘automatic pilot’, it is a wonderful feeling to know that your training that will, in all ways, support the performance. Because ultimately... *“it's TRAINING that will elevate your program from a mere collection of counts, into a wonderful effective masterpiece.”*