RACE AMG Papers with Questions (answers)

The following 5 peer reviews outline *acoustic myography (AMG),* its use, and its application in a Veterinary setting. For each peer review paper, there are 5 key questions designed to test whether the participants have read and understood each paper and their relevant subject matter. Please write all your answers to the *acoustic myography (AMG)* questions below in RED. After you complete the EXAM, please email us your answers to mail@myographytech.com for test scoring. **You will receive your certificate of accreditation via email based on your test results.**

Ahmed JEVS 2021

- Horses in this study were evaluated through manual palpation of the epaxial muscle region. Name three epaxial muscle systems in the horse.

- What is photobiomodulation?

- What techniques were used to assess muscle physiology?

- What has the research of Greve and Dyson [2013; Vet J] raised the awareness of with regards to training?

- Why do muscles located close to a site of pain often exhibit a high firing rate?
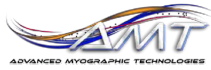
Chavers JEVS 2018

- How common are proximal suspensory ligament injuries in athletic horses?

- How many animals were included in this study and what was their average age?

- Were measurements made invasively or non-invasively?

- What constitutes a healthy AMG signal from a PSL?

- What factors might affect the AMG PSL signal?

Harrison CPFI 2017

- What is it that surface electromyography sEMG measures?

- What other factors besides neural stimulation can effect the contractile performance of skeletal muscle?

- Does the placement of sEMG sensors on a muscle have an effect on the recorded signal?

- What advantages does AMG have over sEMG?

- Can AMG detect eccentric and concentric muscle activity?

Jensen JEVS 2018

- What is Proprioception and how is it monitored in the body?

- How can Proprioception help to train/re-train horses?

- Describe the training program that was adopted.

- With which gait was an effect of proprioception stimulation found?

- What do you understand by the term imbalance?

Vitger AVS 2021

- Why and when would you use a water treadmill?

- Which muscles were investigated in the study and what is their function?

- Explain the ESTi^{TM} score used by the AMG system.

- What did the study find for BF at the walk?

- Increased muscular demands in this study were primarily exerted on BF, while QVL was challenged to a much lesser degree – why?

AMG Analysis – ST and Balance Calculations – with assessment

- Calculate the ST (Force) as well as the overall Balance values for the three muscles given over the page.

- What does a difference in the ST value (left vs right side) tell you about muscle use?

- What does a negative Balance value indicate?

- What does the E-score represent – explain how it is measured?

- Suggest what might be the underlying issue for this subject, when the analysis of all three muscles are taken into account.

	Left-side	Right-side	ST	Balance
m.Gluteus medius	E=2.3 S=6.4 T=5.9	E=2.8 S=7.1 T=8.2		
m.Multifidius	E=7.9 S=9.0 T=9.0	E=1.8 S=8.2 T=8.5		
m.Vastus lateralis	E=2.5 S=4.2 T=9.2	E=0.1 S=1.5 T=8.5		