# CONDITIONING WITH AN EQUINE HEART RATE MONITOR

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Conditioning With an ON-BOARD Equine Heart Rate Monitor

## WHAT IS AN EHRM?

Electronic Device, connected to the horse via electrodes
Display real time heart rate on a wristwatch display
Wireless & Water Resistant
Cause no harm to horse, safe to use
Easy to Use
Accurate
Inexpensive

## WHY USE AN EQUINE HRM?

To safely condition and compete any athletic performance horse
Provide an accurate means to determine level of effort and condition while working
Help prevent injury due to over or under conditioning
Reduce down-time
Lower vet bills
Aide to control conditioning program and level of effort
Tool to provide a better, accurate, real-time communication between horse and rider
Extension of riders intuitive knowledge of the working horse Provide additional information

A Next Generation Stethoscope & Conditioning Device Window Into Your Horse

Provide a tool for a safe controlled conditioning program
Monitor the condition of your horse before during and after a workout
Inform you of potential problems, lameness, illness
Aid you to determine when and IF your horse is ready for Competition
Develop your horsemanship, know when to quit

## BASIC CONDITIONING CONCEPTS

Baseline the current condition of your horse. Ride a normal workout
Record the resting pulse, walk trot and canter pulse for workout
Record the ending pulse at 1 min 2min and 5min. Optional 10
Keep logs of all workouts
Find your horses normal pulse rates for your current level of condition
Will take about 2 to 3 weeks

## WORK CONDITIONING BY THE NUMBERS

Aerobic under 110 to 175 BPM
Anaerobic over 175 BPM

## “LSD” aka LONG SLOW DISTANCE

Under 140 BPM
Working walk, Slow Trot
Slow Miles wet saddle pads
Hours of riding 4 to 8 hr. per session
Just pleasure trail ride 5 to 6 MPH
Some short Fast Trots
Let horse have fun
Work on Riding Techniques
Builds Legs and suspension

## “QN" aka QUANTITY

Targeted HR 140 to 170
1 to 3 hr per session
Working Trots, Slow Canter
Keep up the speed or work hills to keep HR within the working range
Focus your effort in this phase
Horse will find his Targeted HR 140 to 170
Horse will find his ‘working pulse’
SAFE CONDITIONING ZONE
10 to 7 minute mile/ 6 to 10 mph

## “QI” aka QUALITY

Target HR 160 to 185
Fast and hard trot, Canters
Speed 9 to 13 MPH
At aerobic threshold
1 hr normal with up to 2 hr max
Will give the best short workout
Watch Recovery, Take on trail recovery at 1 min and 2 min every ½ hour of work.
Increase work by hills, mountains & sand.
Try not to use high speed
Carry Weight
HOW TO FIND THE AEROBIC THRESHOLD

- Warm up the horse about 1 hr of trot sets.
- Gallop at full - speed best if done up a grade. You will not have to go so fast.
- You want to find the highest HR that can be obtained.
- Ask for more effort to inure he is not holding back.
- This is a short sprint about ¼ mile.
- Take 80% of the high HR. That will be close enough.

## “IT” aka INTERVAL

Most Dangerous- Anaerobic level
HR over 185 to Horses maximum HR
Short, 1 to 5 miles MAX
A repetitive effort with a short rest between efforts
Very hard trot and/or gallops
Speed 15 to 25 MPH/ 4 - Min Mile
EXAMPLE
3x1/2 -Gallop for ½ mile rest for 1 to 2 min or when HR drops to 120, Repeat 3 times.
That is all the work for the day
Increase DISTANCE OR REPS next time, not both
Watch recovery, if recovery in 2 MIN is NOT 120 BPM or LESS
Stop for the day
Keep very good records

## SUMMARY OF LEVEL OF EFFORT AND HEART RATE

LSD under 140
QN 140 to 170
QI 160 to 185
IT 180++

## CONDITIONING PROGRAM

**OBJECTIVE**:
To progressively increase the workload without damage
Allow for recovery and rest
Target higher HR for shorter times
Reduce those long – high-speed works
Modify anaerobic threshold
Teach horse to tolerate the higher level of lactate acid
Will reduce problems during competition
Develop the cardiac system
Respiratory rate is NOT a measure of condition
Shows either oxygen debt or heat load
Load - recover - load - recover - then rest
Cardiac response conditioning
Increase level of effort by use of working hr and recovery rate

## RESTING PULSE

TAKE EVERY DAY - RECORD - NOTE CHANGE FROM NORM
5 BEATS OVER NORMAL INDICATES A PROBLEM
As condition improves pulse will decease

## WORKING PULSE -warm up exercise

Note pulse at walk and easy trot
Any increase from baseline **over 5 beats** stop the work

## CARDIAC RESPONSE:

INCREASED HEART RATES AT NORMAL LEVEL OF EFFORT IS AN INDICATOR OF A PROBLEM
May appear ok
Look for slight lameness
Working with a problem results in pain and increased heart rate
Decreasing heart rates at 'standard' levels of effort indicates an improvement of condition
Work and condition at gradual increased HR levels
Condition for time at a given HR rather then riding for a fixed number of miles or time at assorted speeds

## COMPETE AT LEVELS OF EFFORT AND HR USED IN CONDITIONING

Going faster longer in competition will result in problems and potential injury
Riding by the numbers is NOT as bad as you may think. It provides a controlling limit.

## STANDARD TESTS

**CRI CARDIAC RECOVERY INDEX**

DO THIS MOUNTED OR IN HAND, DURING A WORKOUT AND ALWAYS AFTER
STOP LET HORSE RECOVER TO A STABLE HR
NOTE TIME, ON THE MINUTE, NOTE HR
TROT FOR 250 FT ABOUT 30 SECONDS
STOP, NOTE HR AFTER ONE MINUTE FROM START OF TROT
HR MUST BE EQUAL OR LOWER THEN START PULSE
IF NOT HORSE IS OVER WORKED

**FLAT MILE "FEET PER BEAT'**

MEASURE AN ACCURATE ONE MILE SECTION OF A FLAT TRAIL
TROT HORSE AT AN 8 MIN MILE (ABOUT 7 MPH)
NOTE HR DURING THIS EFFORT AND AT COMPLETION
A fit horse will trot a progressively lower heart rates, higher shows a problem

**FLAT MILE - OPTION 2**

TROT AT A FIXED HR OF 145 TO 150 OVER THE MILE
NOTE ELAPSED TIME IN MINUTES AND SECONDS
A FIT HORSE WILL TRAVEL FASTER AT THE SAME HR AS CONDITIONING IMPROVES

**POST RIDE/WORK**

ALWAYS TAKE RECOVERY PULSE AT A FIXED TIME
TRY FOR 1, 2 & 5 MINUTE POINTS DEPENDS ON LEVEL OF EFFORT ON THE WAY HOME

**SUMMARY**

USE TO IMPROVE PERFORMANCE
INCREASE EFFORT WITH CONFIDENCE
LIMIT INJURY
ADDS TO INTUITIVE KNOWLEDGE
A SAFETY VALVE
REDUCE RIDER STRESS
NOT FOR EVERYONE
NEW RIDERS- GET A GOOD STETHOSCOPE
Where to get more information
Books, articles, electronic sources
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