

# NORMAL VITAL SIGNS

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## Quick Reference:

	<b>Adults</b>	<b>Foals</b>
<b>Temperature</b>	99-101 °F	99.5-102.1 °F
<b>Heart Rate (Pulse)</b>	28-44 bpm	80-100 bpm
<b>Respiratory (Breathing) Rate</b>	10-24 bpm	20-40 bpm

## What is TPR?

TPR is an acronym that stands for temperature, pulse and respiratory rate. It's a quick reference for veterinarians when referring to a horse's vital signs.

## Heart Rate:

### **Normal Range:**

- Adults: 28-44 beats per minute
- Foals: 80-100 beats per minute

### **How to take a heart rate:**

- The easiest place to feel the mandibular artery is under your horse's jaw.
- Curl your finger under your horse's jaw (mandible) and pull back toward the jaw bone until you feel a cord-like structure.
- Press slightly and you will feel a pulse beating. Count for 15 seconds and multiply this number by 4. This is your horse's resting heart rate.
- Checking your horse's pulse regularly familiarizes yourself with how their normal heart rate feels and if it is pumping harder or less hard than normal.

### **Why might your horse's heart rate be elevated?**

- Horses that have just undergone strenuous exercise will have an elevated heart rate. This is a normal physiological response and the heart rate should return to normal within 10-15 minutes post exercise.
- Excited and anxious horses commonly have elevated heart rates (> 44 bpm). Trying to eliminate the reason for excitement and asking these horses to stand quietly usually results in the heart rate returning to normal.
- An elevated heart rate, greater than 60 beats per minute, is common in horses that are uncomfortable and in pain. It is important to contact your veterinarian, especially if these horses are showing signs of colic, sickness, lacerations/fractures or other obvious signs of illness.

## Respiratory Rate:

### **Normal Range:**

- Adults: 10-24 breaths per minute
- Foals: 20-40 breaths per minute

### **How to take a respiratory rate:**

- Place your hand next to your horse's flank just past the last rib.
- Watch as your horse's belly moves towards and back away from your hand as they take a breath. Count the number of breathes per 15 seconds and multiply by 4. This is your horse's resting respiratory rate.

### **Why might your horse's respiratory rate be elevated?**

- Horses that have just undergone strenuous exercise will have an elevated respiratory rate. This is a normal physiological response and the respiratory rate should return to normal within 10-15 minutes post exercise.
- Allowing your horse to sniff your hand or an article of clothing will elevate your horse's respiratory rate, as they will sniff much quicker than their regular breathing rate.
- Increased respiratory rate is seen in horse's that are in pain, have a fever or are in respiratory distress (increased respiratory rate, effort, flared nostrils and respiratory noise). Contact your veterinarian if your horse is showing any of these signs.

### **Temperature:**

#### **Normal Range:**

- Adults: 99-101°F
- Foals: 99.5-102.1°F

#### **How to take a temperature:**

- A digital thermometer can be purchased at your average drugstore. Using petroleum jelly will help to lubricate the tip of the thermometer.
- Your horse should be secured in cross-ties or have another person assist in holding your horse. Approach your horse from the side; do not stand directly behind your horse in case they decide to kick. Insert the thermometer into the rectum and wait until the the thermometer beeps indicating the final temperature.

#### **Why might your horse's temperature be elevated?**

- Temperatures can be elevated post exercise. Remove tack, sponge bath with cool water or alcohol and place fans blowing air in the direct of your horse. Recheck the temperature in 10 minutes. A horse's temperature should return to normal within 10-15 minutes.
- Elevated temperatures can also indicate illness or infection. Often, these horses will be anorexic, lethargic and depressed. Contact your veterinarian if your horse is showing any of these signs.

#### **Why might your horse's temperature be decreased?**

- Temperatures can be falsely decreased if there is manure or gas sitting in the rectum. Recheck the temperature after walking for 5-10 minutes which may help your horse pass the gas or manure.
- Horses with decreased temperatures that are wet or shivering should be attended to immediately. Return them to a stall or other shelter, dry their coat with towels and apply a cooler or blanket. Recheck their temperature every 30-60 minutes until it returns to normal.