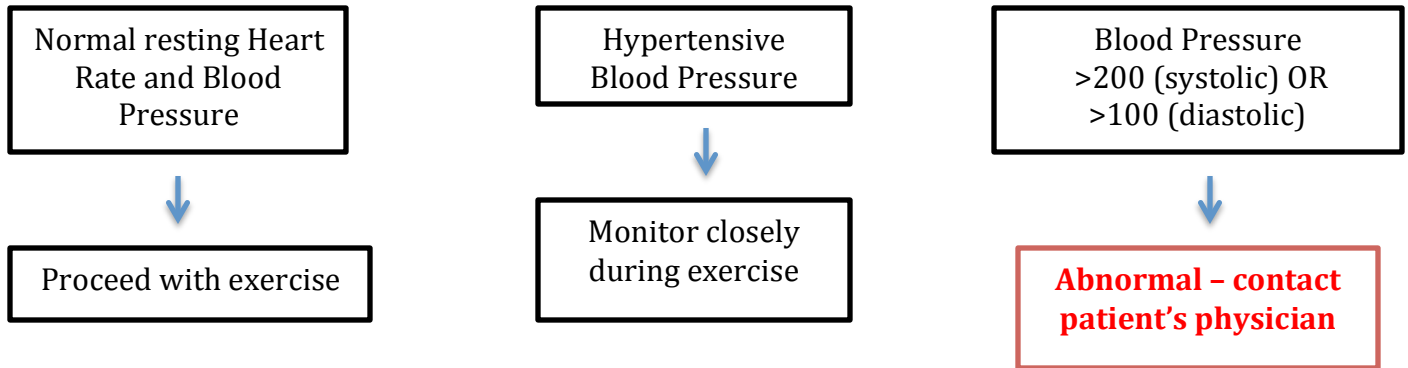
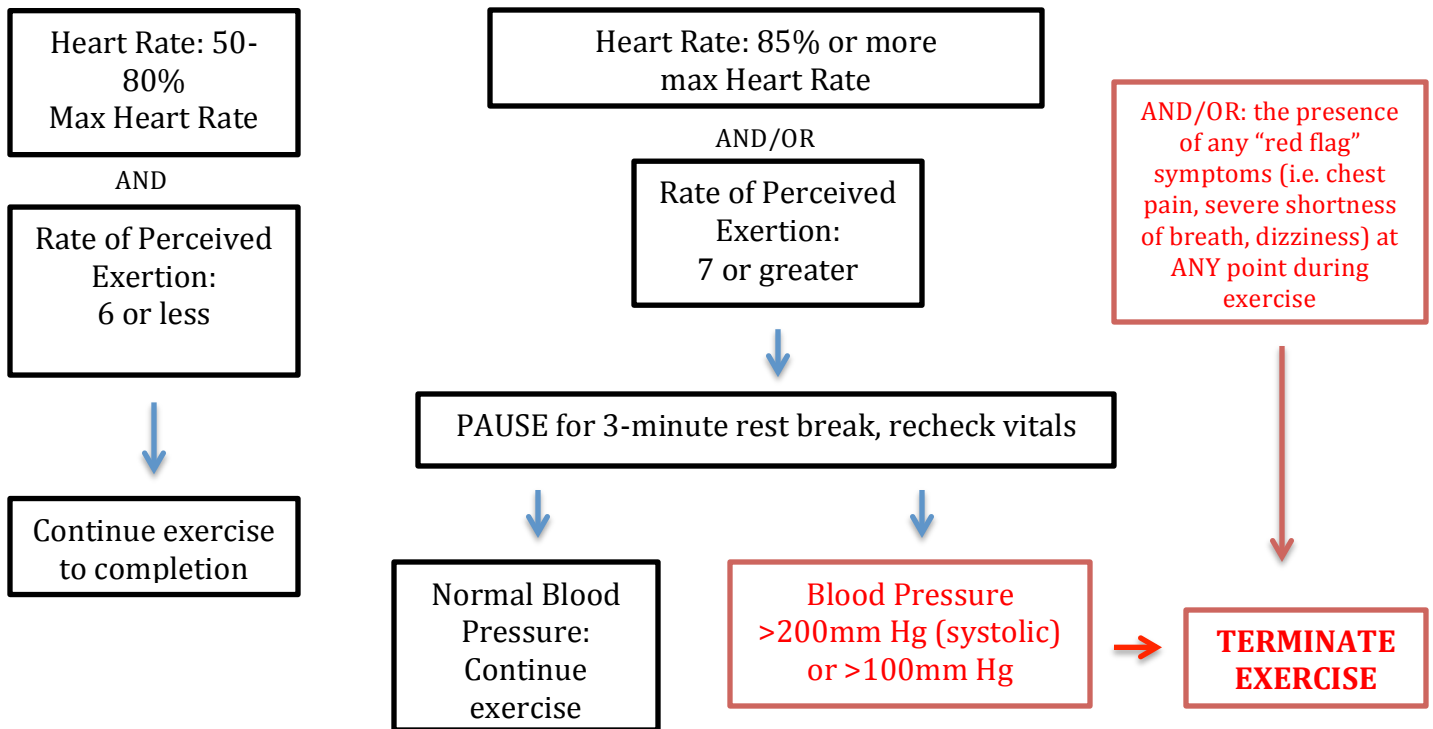


Decision Tree for Safe Participation in Exercise

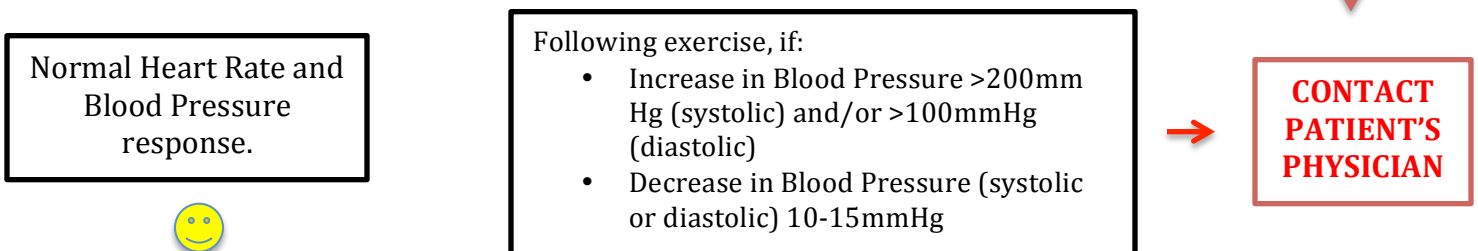
BEFORE EXERCISE: Check patient's resting **Heart Rate** and **Blood Pressure**.



DURING EXERCISE: Monitor patient's **Heart Rate** and **Rate of Perceived Exertion**.



AFTER EXERCISE: Reassess **Heart Rate** and **Blood Pressure**.



Decision Tree for Safe Participation in Exercise

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Vital Signs Information Sheet

Adult Heart Rate:¹

<i>Normal</i>	60-100 beats per minute
<i>Abnormal</i>	<60 or >100 beats per minute
<i>Expected Response to Exercise</i>	50-80% of calculated* Max Heart Rate

***To Calculate Target Heart Rate Zone (50-80% Max Heart Rate):**

- Estimate Max Heart Rate: 220 – (patient’s age)
- Calculate lower and upper target heart rate limits
 - Lower: (Heart Rate Max) x 50%
 - Upper: (Heart Rate Max) x 80%

Adult Blood Pressure:^{1,2}

	Systolic (mm Hg)	Diastolic (mm Hg)
<i>Normal Adult</i>	<120	<80
<i>Prehypertensive</i>	120-139	80-89
<i>Stage I Hypertension</i>	140-159	90-99
<i>Stage II hypertension</i>	≥160	≥100
<i>Expected Response to Exercise</i>	Increase 10-40	(Minor to no change)

Vital Sign Ranges at Various Ages for Children:¹

Age	Heart Rate (beats per minute)	Blood Pressure (mm Hg)
<i>Newborn</i>	120-160	50-70/(varies)
<i>1-12 months</i>	80-140	70-100/(varies)
<i>1-5 years</i>	80-130	80-110/48-80
<i>6-12 years</i>	70-110	80-120/50-90
<i>13-17 years</i>	55-105	110-120/60-92

References:

1. Magee DJ, ed. *Orthopedic Physical Assessment*. 5th Ed. St. Louis, MO: Saunders Elsevier; 2008.
2. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC 7). National Heart Lung and Blood Institute Web site. Available at: <http://www.nhlbi.nih.gov/guidelines/hypertension/jnc7full.pdf>. Published 2004. Accessed March 5, 2015.