

Human Physiology Tuesday

The Effects of Posture on Heart Rate and Blood Pressure

Table 1: The Cardiovascular Effects Posture on HR

| Student | Supine Heart Rate | Standing Heart Rate |
|-------------------|-------------------|---------------------|
| 1 | 78 | 96 |
| 2 | 66 | 78 |
| 3 | 80 | 88 |
| 4 | 64 | 92 |
| 5 | 64 | 104 |
| 6 | 75 | 95 |
| 7 | 72 | 88 |
| 8 | 82 | 96 |
| 9 | 64 | 84 |
| 10 | 72 | 85 |
| 11 | 80 | 80 |
| 12 | 78 | 82 |
| 13 | 68 | 80 |
| 14 | 72 | 92 |
| 15 | 104 | 92 |
| 16 | 72 | 92 |
| 17 | 68 | 102 |
| 18 | 64 | 84 |
| 19 | | |
| 20 | | |
| 21 | | |
| 22 | | |
| 23 | | |
| 24 | | |
| 25 | | |
| Average HR | 73.5 | 89.4 |

Table 2: Cardiovascular Effects on Blood Pressure

| Student | Supine Blood Pressure | | Standing Blood Pressure | |
|----------------|-----------------------|-------------|-------------------------|--------------|
| | Supine SBP | Supine DBP | Standing SBP | Standing DBP |
| 1 | 120 | 80 | 150 | 90 |
| 2 | 158 | 80 | 178 | 93 |
| 3 | 110 | 64 | 132 | 78 |
| 4 | 116 | 64 | 130 | 72 |
| 5 | 119 | 82 | 122 | 80 |
| 6 | 152 | 59 | 159 | 67 |
| 7 | 110 | 75 | 117 | 79 |
| 8 | 110 | 68 | 120 | 73 |
| 9 | 120 | 75 | 100 | 75 |
| 10 | 125 | 80 | 145 | 80 |
| 11 | 121 | 75 | 132 | 87 |
| 12 | 125 | 60 | 118 | 77 |
| 13 | 108 | 75 | 115 | 80 |
| 14 | 119 | 55 | 120 | 70 |
| 15 | 160 | 50 | 160 | 90 |
| 16 | 115 | 70 | 120 | 80 |
| 17 | 110 | 74 | 116 | 75 |
| 18 | 110 | 75 | 115 | 70 |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |
| 23 | | | | |
| 24 | | | | |
| 25 | | | | |
| Average | 122.7 | 70.1 | 130.5 | 78.7 |

Table 3: Summary

| Summary | Fast postural change | | T-test P Value |
|-----------------|----------------------|----------|----------------|
| | Supine | Standing | |
| Heart Rate mean | 73.5 | 89.4 | 0.00001 |
| SBP Mean | 122.7 | 130.5 | 0.0047 |
| DBP mean | 70.1 | 78.7 | 0.0010 |

