# **The NASA 10-minute Lean Test**

**Step1:** Lie down in supine position. After lying quietly 5-10 minutes, record blood pressure (BP) and heart rate (HR). Repeat a minute later. Retake until two consecutive vital readings are relatively similar. The goal is to find the average resting supine BP and HR

**Step2:** Get up and stand straight while leaning against the wall; shoulder blades against the wall, heels approximately 20cm from the wall. Relax as much as possible.

**Step3:** Start the timer and record the standing BP and HR. Repeat BP and HR measurements each minute for 10 minutes.

Do not talk, except to report symptoms. Resist moving feet or shifting weight.

Record comments/ symptoms as applicable. e.g., light-headedness or dizziness. Brain fog. Swelling or changes in colour and temperature in skin and extremities.

**Stop the test if you are about to faint.**

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| Record Orthostatic Vital Signs | | | |
|  | (BP) Blood Pressure | (HR) Heart Rate | Comments |
| Supine 1 minute |  |  |  |
| Supine 2 minute |  |  |  |
|  |  |  |  |
| Standing 1 minute |  |  |  |
| Standing 2 minute |  |  |  |
| Standing 3 minute |  |  |  |
| Standing 4 minute |  |  |  |
| Standing 5 minute |  |  |  |
| Standing 6 minute |  |  |  |
| Standing 7 minute |  |  |  |
| Standing 8 minute |  |  |  |
| Standing 9 minute |  |  |  |
| Standing 10 minute |  |  |  |

* Limit water/fluid intake to 1000 mL for 24 hours before the test.
* Limit sodium/salt intake for 48 hours before the test.
* Do not wear compression socks or clothing on the day of the test.
* Try to complete test prior to commencing medications, supplements, or substances that might affect BP or HR. (if already taking medications discuss safety of ceasing medication for a short period prior to the test with your doctor)