

# ADULT PRE-EXERCISE SCREENING SYSTEM (APSS)



This screening tool is part of the Adult Pre-Exercise Screening System (APSS) that also includes guidelines (see User Guide) on how to use the information collected and to address the aims of each stage. No warranty of safety should result from its use. The screening system in no way guarantees against injury or death. No responsibility or liability whatsoever can be accepted by Exercise & Sport Science Australia, Fitness Australia, Sports Medicine Australia or Exercise is Medicine for any loss, damage, or injury that may arise from any person acting on any statement or information contained in this system.

Full Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Male:  Female:  Other:

## STAGE 1 (COMPULSORY)

**AIM:** To identify individuals with known disease, and/or signs or symptoms of disease, who may be at a higher risk of an adverse event due to exercise. An adverse event refers to an unexpected event that occurs as a consequence of an exercise session, resulting in ill health, physical harm or death to an individual.

This stage may be self-administered and self-evaluated by the client. Please complete the questions below and refer to the figures on page 2. Should you have any questions about the screening form please contact your exercise professional for clarification.

	<i>Please tick your response</i>	
	YES	NO
1. Has your medical practitioner ever told you that you have a heart condition or have you ever suffered a stroke?		
2. Do you ever experience unexplained pains or discomfort in your chest at rest or during physical activity/exercise?		
3. Do you ever feel faint, dizzy or lose balance during physical activity/exercise?		
4. Have you had an asthma attack requiring immediate medical attention at any time over the last 12 months?		
5. If you have diabetes (type 1 or 2) have you had trouble controlling your blood sugar (glucose) in the last 3 months?		
6. Do you have any other conditions that may require special consideration for you to exercise?		

**IF YOU ANSWERED 'YES'** to any of the 6 questions, please seek guidance from an appropriate allied health professional or medical practitioner prior to undertaking exercise.

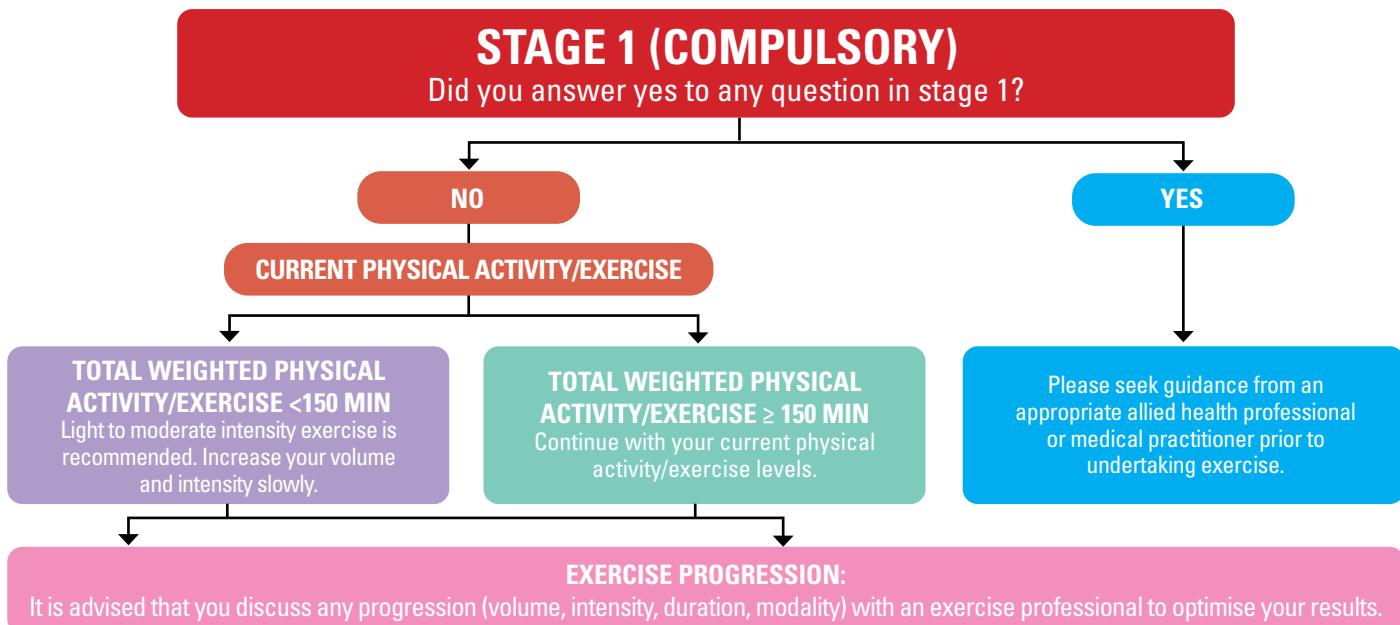
**IF YOU ANSWERED 'NO'** to all of the 6 questions, please proceed to question 7 and calculate your typical weighted physical activity/exercise per week.

<p>7. Describe your current physical activity/exercise levels in a typical week by stating the frequency and duration at the different intensities. For intensity guidelines consult figure 2.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Intensity</th> <th style="text-align: center;">Light</th> <th style="text-align: center;">Moderate</th> <th style="text-align: center;">Vigorous/High</th> </tr> </thead> <tbody> <tr> <td><b>Frequency</b> (number of sessions per week)</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>Duration</b> (total minutes per week)</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table>	Intensity	Light	Moderate	Vigorous/High	<b>Frequency</b> (number of sessions per week)	_____	_____	_____	<b>Duration</b> (total minutes per week)	_____	_____	_____	<p><b>Weighted physical activity/exercise per week</b></p> <p>Total minutes = (minutes of light + moderate) + (2 x minutes of vigorous/high)</p> <p><b>TOTAL = _____ minutes per week</b></p>
Intensity	Light	Moderate	Vigorous/High										
<b>Frequency</b> (number of sessions per week)	_____	_____	_____										
<b>Duration</b> (total minutes per week)	_____	_____	_____										
<ul style="list-style-type: none"> <li>If your total is less than 150 minutes per week then light to moderate intensity exercise is recommended. Increase your volume and intensity slowly.</li> <li>If your total is more than or equal to 150 minutes per week then continue with your current physical activity/exercise intensity levels.</li> <li>It is advised that you discuss any progression (volume, intensity, duration, modality) with an exercise professional to optimise your results.</li> </ul>													

I believe that to the best of my knowledge, all of the information I have supplied within this screening tool is correct.

Client signature: \_\_\_\_\_ Date: \_\_\_\_\_

**FIGURE 1: Stage 1 Screening Steps**



**FIGURE 2: Exercise Intensity Guidelines**

INTENSITY CATEGORY	HEART RATE MEASURES	PERCEIVED EXERTION MEASURES	DESCRIPTIVE MEASURES
<b>LIGHT</b>	40 to <55% HRmax*	<b>VERY LIGHT TO LIGHT RPE# 1-2</b>	<ul style="list-style-type: none"> <li>An aerobic activity that does not cause a noticeable change in breathing rate</li> <li>An intensity that can be sustained for at least 60 minutes</li> </ul>
<b>MODERATE</b>	55 to <70% HRmax*	<b>MODERATE TO SOMEWHAT HARD RPE# 3-4</b>	<ul style="list-style-type: none"> <li>An aerobic activity that is able to be conducted whilst maintaining a conversation uninterrupted</li> <li>An intensity that may last between 30 and 60 minutes</li> </ul>
<b>VIGOROUS</b>	70 to <90% HRmax*	<b>HARD RPE# 5-6</b>	<ul style="list-style-type: none"> <li>An aerobic activity in which a conversation generally cannot be maintained uninterrupted</li> <li>An intensity that may last up to 30 minutes</li> </ul>
<b>HIGH</b>	≥ 90% HRmax*	<b>VERY HARD RPE# 7</b>	<ul style="list-style-type: none"> <li>An aerobic activity in which it is difficult to talk at all</li> <li>An intensity that generally cannot be sustained for longer than about 10 minutes</li> </ul>

\* HRmax = estimated heart rate maximum. Calculated by subtracting age in years from 220 (e.g. for a 50 year old person = 220 - 50 = 170 beats per minute).

# = Borg's Rating of Perceived Exertion (RPE) scale, category scale 0-10.

Modified from Norton K, L. Norton & D. Sadgrove. (2010). Position statement on physical activity and exercise intensity terminology. J Sci Med Sport 13, 496-502.

# STAGE 2 (RECOMMENDED)



**AIM:** This stage is to be completed with an exercise professional to determine appropriate exercise prescription based on established risk factors.

CLIENT DETAILS	GUIDELINES FOR ASSESSING RISK
<p>8. Demographics</p> <p>Age: _____</p> <p>Male <input type="checkbox"/> Female <input type="checkbox"/> Other <input type="checkbox"/></p>	<p>Risk of an adverse event increases with age, particularly males <math>\geq 45</math> yr and females <math>\geq 55</math> yr.</p>
<p>9. Family history of heart disease (e.g. stroke, heart attack)?</p> <p>Relationship (e.g. father)      Age at heart disease event</p> <p>_____                                      _____</p> <p>_____                                      _____</p> <p>_____                                      _____</p>	<p>A family history of heart disease refers to an event that occurs in relatives including parents, grandparents, uncles and/or aunts before the age of 55 years.</p>
<p>10. Do you smoke cigarettes on a daily or weekly basis or have you quit smoking in the last 6 months?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If currently smoking, how many per day or week?</p> <p>_____</p>	<p>Smoking, even on a weekly basis, substantially increases risk for premature death and disability. The negative effects are still present up to at least 6 months post quitting.</p>
<p>11. Body composition</p> <p>Weight (kg) _____ Height (cm) _____</p> <p>Body Mass Index (kg/m<sup>2</sup>) _____</p> <p>Waist circumference (cm) _____</p>	<p>Any of the below increases the risk of chronic diseases:</p> <p>BMI <math>\geq 30</math> kg/m<sup>2</sup></p> <p>Waist &gt; 94 cm male or &gt; 80 cm female</p>
<p>12. Have you been told that you have high blood pressure?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If known, systolic/diastolic (mmHg)</p> <p>_____</p> <p>Are you taking any medication for this condition?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If yes, provide details</p> <p>_____</p>	<p>Either of the below increases the risk of heart disease:</p> <p>Systolic blood pressure <math>\geq 140</math> mmHg</p> <p>Diastolic blood pressure <math>\geq 90</math> mmHg</p>
<p>13. Have you been told that you have high cholesterol/ blood lipids?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If known:</p> <p>Total cholesterol (mmol/L) _____</p> <p>HDL (mmol/L) _____</p> <p>LDL (mmol/L) _____</p> <p>Triglycerides (mmol/L) _____</p> <p>Are you taking any medication for this condition?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If yes, provide details _____</p>	<p>Any of the below increases the risk of heart disease:</p> <p>Total cholesterol <math>\geq 5.2</math> mmol/L</p> <p>HDL &lt; 1.0 mmol/L</p> <p>LDL <math>\geq 3.4</math> mmol/L</p> <p>Triglycerides <math>\geq 1.7</math> mmol/L</p>

CLIENT DETAILS	GUIDELINES FOR ASSESSING RISK
<p>14. Have you been told that you have high blood sugar (glucose)?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If known: Fasting blood glucose (mmol/L) _____</p> <p>Are you taking any medication for this condition?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If yes, provide details</p> <p>_____</p>	<p>Fasting blood sugar (glucose) <math>\geq 5.5</math> mmol/L increases the risk of diabetes.</p>
<p>15. Are you currently taking prescribed medication(s) for any condition(s)? These are additional to those already provided.</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If yes, what are the medical conditions?</p> <p>_____</p>	<p>Taking medication indicates a medically diagnosed problem. Judgment is required when taking medication information into account for determining appropriate exercise prescription because it is common for clients to list 'medications' that include contraceptive pills, vitamin supplements and other non-pharmaceutical tablets. Exercise professionals are not expected to have an exhaustive understanding of medications. Therefore, it may be important to use common language to describe what medical conditions the drugs are prescribed for.</p>
<p>16. Have you spent time in hospital (including day admission) for any condition/illness/injury during the last 12 months?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If yes, provide details</p> <p>_____</p>	<p>There are positive relationships between illness rates and death versus the number and length of hospital admissions in the previous 12 months. This includes admissions for heart disease, lung disease (e.g., Chronic Obstructive Pulmonary Disease (COPD) and asthma), dementia, hip fractures, infectious episodes and inflammatory bowel disease. Admissions are also correlated to 'poor health' status and negative health behaviours such as smoking, alcohol consumption and poor diet patterns.</p>
<p>17. Are you pregnant or have you given birth within the last 12 months?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If yes, provide details</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>During pregnancy and after recent childbirth are times to be more cautious with exercise. Appropriate exercise prescription results in improved health to mother and baby. However, joints gradually loosen to prepare for birth and may lead to an increased risk of injury especially in the pelvic joints. Activities involving jumping, frequent changes of direction and excessive stretching should be avoided, as should jerky ballistic movements. Guidelines/fact sheets can be found here: 1) <a href="http://www.exerciseismedicine.com.au">www.exerciseismedicine.com.au</a> 2) <a href="http://www.fitness.org.au/Pre-and-Post-Natal-Exercise-Guidelines">www.fitness.org.au/Pre-and-Post-Natal-Exercise-Guidelines</a></p>
<p>18. Do you have any diagnosed muscle, bone, tendon, ligament or joint problems that you have been told could be made worse by participating in exercise?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If yes, provide details</p> <p>_____</p> <p>_____</p>	<p>Almost everyone has experienced some level of soreness following unaccustomed exercise or activity but this is not really what this question is designed to identify. Soreness due to unaccustomed activity is not the same as pain in the joint, muscle or bone. Pain is more extreme and may represent an injury, serious inflammatory episode or infection. If it is an acute injury then it is possible that further medical guidance may be required.</p>

**Important Information:** This screening tool is part of the [Adult Pre-Exercise Screening System \('APSS'\)](#) and should be read with the APSS guidelines (see [User Guide](#)) on how to use the information collected and to address the aims of each stage. This does not constitute medical advice. This form, the guidelines and the APSS (together 'the material') is not intended for use to diagnose, treat, cure or prevent any medical conditions, is not intended to be professional advice and is not a substitute for independent health professional advice. Exercise & Sports Science Australia, Fitness Australia, Sports Medicine Australia and Exercise is Medicine (together 'the organisations') do not accept liability for any claims, howsoever described, for loss, damage and/or injury in connection with the use of any of the material, or any reliance on the information therein. While care has been taken to ensure the information contained in the material is accurate at the date of publication, the organisations do not warrant its accuracy. No warranties (including but not limited to warranties as to safety) and no guarantees against injury or death are given by the organisations in connection with the use or reliance on the material. If you intend to take any action or inaction based on this form, the guidelines and/or the APSS, it is recommended that you obtain your own professional advice based on your specific circumstances.