

# Paper 1: The recovery process from vigorous exercise

Recovery process	Explanation	Sporting Example
<p><b>Cool down</b></p> 	<p>A cool down is important after vigorous exercise. Light exercise and stretching help to:</p> <ul style="list-style-type: none"> <li>To keep the breathing/heart rate elevated ensures blood flow to the muscles which helps convert the lactic acid to glucose, carbon dioxide and water to prevent muscle soreness</li> </ul>	<p>Any sport or activity after vigorous exercise</p>
<p><b>Massage</b></p> 	<p>A massage helps the delayed onset of muscular soreness (DOMS). This is when muscle soreness does not happen immediately but one or two days after a period of intense exercise</p> <p>The massage:</p> <ul style="list-style-type: none"> <li>Reduces inflammation of a tender area</li> <li>Increases blood flow, so increases oxygen delivery to the muscles which helps the removal of lactic acid</li> </ul>	<p>Games players may use an ice bath after an intense match to help recovery</p>
<p><b>Ice baths</b></p> 	<p>Getting into an ice bath 5 to 10 minutes after intense exercise helps:</p> <ul style="list-style-type: none"> <li>Aid and repair micro tears in muscle fibres preventing DOMS</li> <li>Reduce swelling of an injured area</li> <li>When you get out an ice bath the warmer temperature dilates blood vessels which allows oxygenated blood to rush to the muscles removing lactic acid and other waste products</li> </ul>	<p>Games players may use an ice bath after an intense match to help recovery</p>
<p><b>Manipulation of diet</b></p> <p><b>Carbohydrates</b></p>  <p><b>Rehydration</b></p> 	<p><b>Carbohydrates</b></p> <p>Foods high in carbohydrates should be consumed soon after exercise this aims to:</p> <ul style="list-style-type: none"> <li>Replace glycogen stores</li> </ul> <p><b>Rehydration</b></p> <p>Water or isotonic drinks should be consumed before during and after vigorous exercise, this helps to:</p> <ul style="list-style-type: none"> <li>Replace fluids that are lost during exercise</li> <li>Prevent dizziness and nausea that are symptoms of dehydration</li> </ul>	<p>Endurance athletes such as runners</p> <p>Any performer that sweats needs to rehydrate</p>