

# National Osteoarthritis Strategy brief report

## *Prevention of osteoarthritis*

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*This article is part one in a three-part series on the National Osteoarthritis Strategy.*

### Background

Osteoarthritis (OA) is one of the most common and debilitating chronic joint conditions in Australia. A National Osteoarthritis Strategy (the Strategy) was developed to outline a national plan to achieve optimal health outcomes for people at risk of, or with, OA.

### Objective

This article focuses on the theme of prevention of OA within the Strategy.

### Discussion

The Strategy was developed by a leadership group, three working groups, an implementation planning committee, multisectoral stakeholders and public consultation. The Strategy's 'Prevention Working Group' identified two priorities for action: 1) implement programs that target the prevention of obesity and increase physical activity, 2) adhere to joint injury prevention programs. The lack of implementable policies that promote OA prevention exposes Australians and the public health system to an enormous burden. A set of evidence-based strategies was proposed to assist implementation throughout Australia.

**OSTEOARTHRITIS (OA)** is the most common chronic joint condition globally and in Australia: one in five Australians over the age of 45 years have OA.<sup>1</sup> Nevertheless, the care that consumers receive in Australia is fragmented and, in some cases, inappropriate.<sup>2</sup> The National Osteoarthritis Strategy (the Strategy) aims to outline Australia's national response to OA and inform how to better coordinate existing limited health resources to deliver more appropriate care for people with OA.

The Strategy covers three thematic areas – 'prevention', 'living well with OA' and 'advanced care' – by using a whole-person journey method from prevention and early management (including self-management) to advanced care (eg joint replacement and other related surgery). It was developed by three working groups and assessed by an implementation committee, under the guidance of a leadership group. These specialist groups comprised research experts and representatives of OA disciplines, general practitioners (GPs) and other primary care practitioners, advocacy groups of the Australian healthcare system and consumers. Membership of these groups was through a nomination (or self-nomination) process, governed by the leadership group. The Strategy also underwent a consultation process with key stakeholder groups and the public.

The strategic priorities were based on a set of prioritisation criteria, including the

existing evidence, impact and feasibility of recommendations for these priority areas. This article is part one of the Strategy series, focused on 'prevention'. Parts two and three focus on 'living well with OA' and 'advanced care', respectively.

### Identified prevention gaps

Two areas, both of which are strongly linked with the development of OA, were the focus of this part of the strategy – reducing obesity (and increasing physical activity) and preventing joint injuries.

### Poor implementation of obesity prevention programs

Obesity is strongly linked with OA and pain. Losing weight can reduce the clinical signs of OA, but it is difficult because of the interplay of factors in an obesogenic environment.<sup>3,4</sup> Despite numerous government reports and policies, the burden of obesity prevention still lies mostly with individuals and non-government initiatives.<sup>5</sup>

Stakeholder groups have developed evidence-based strategies to inform policymakers and clinicians about effective ways to prevent obesity in Australia.<sup>6</sup> Programs that seek to reduce obesity generally focus on healthy eating and physical activity.<sup>7,8</sup>

Primary healthcare professionals should be an integral part of the implementation process and need to be supported to

manage obesity effectively. They are usually the first health professionals sought out for advice, and the patient–clinician relationship they develop can be a key contributor to the effectiveness of the program.<sup>9,10</sup> Therefore, support from primary care professionals is needed for this Strategy to be a success.

**Joint injuries and osteoarthritis**

Lower limb joint injuries, particularly those sustained during sport, are a leading reason for medical attention. There is a very strong association between anterior cruciate ligament (ACL) injury and later development of knee OA.<sup>3</sup> ACL injuries occur most often in youth aged 15–24 years, and annual incidence rates are increasing.<sup>11</sup> Particularly rapid increases are reported for ACL reconstructions among children aged 5–14 years.<sup>12</sup> Post-ACL injury, symptoms of OA tend to occur by age 25–35 years, often a peak time for work, social and family commitments.

Prevention programs that focus on sports-specific movements and tasks can decrease injuries, including ACL injuries, by 50–80%.<sup>13,14</sup> Specific injury prevention exercise programs (IPEPs) are available for popular Australian sports including football, netball, soccer and rugby. To assist GPs and other healthcare practitioners, information about those programs can be found at the Safe Sports Australia website ([www.safesport.org.au](http://www.safesport.org.au)).

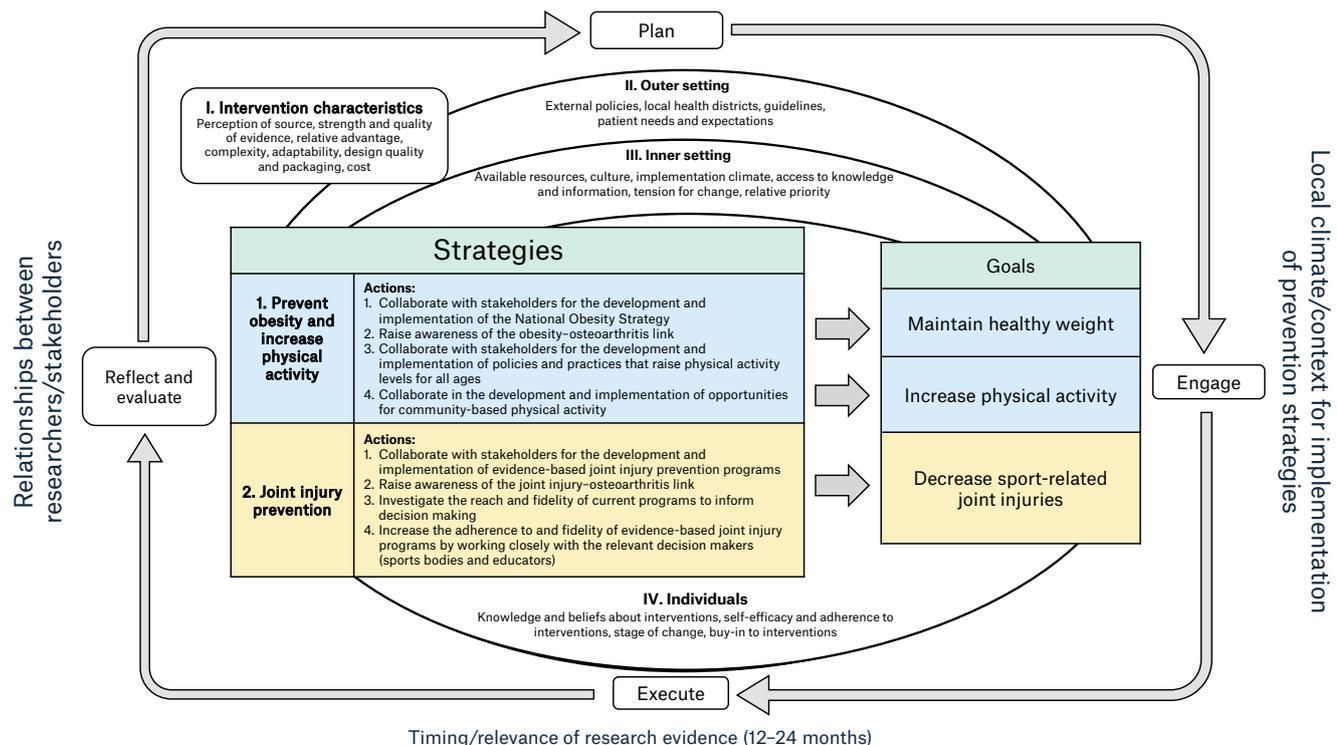
Medical practitioners often have formal or informal roles in their local community sports clubs. For the best outcomes of the Strategy, practitioners can assist by promoting the message that injuries can be controlled, and encouraging the uptake of an IPEP in the clubs with which they work.

**The general practitioner’s role in the prevention of osteoarthritis**

GPs can make important contributions by assessing and managing behavioural

risk factors and advocating for social policy change toward increasing physical activity and obesity reduction in their communities. They can counsel patients about local opportunities for becoming more physically active, improving nutrition and supporting behaviour change.<sup>15</sup>

Chronic Disease Management Programs – such as the Osteoarthritis Chronic Care Program and the Osteoarthritis Hip and Knee Service,<sup>16,17</sup> offered in hospital settings, and Healthy Weight for Life,<sup>18</sup> provided through some private health insurance plans – can assist GPs to provide evidence-based education and management strategies for at-risk patients. A key component of most plans is referral to accredited exercise physiologists, dietitians and physiotherapists for assistance with increasing physical activity and improving diet. Referral to sport and exercise physicians is available for patients with complex conditions.



**Figure 1.** The Strategy’s proposed framework for the implementation of strategies required for the prevention of osteoarthritis  
Adapted from Wolk et al<sup>20</sup> and based on the Consolidated Framework for Implementation Research<sup>21</sup>

## Priorities and strategic responses

Actionable strategic responses to tackle these priorities are proposed on the basis of the Consolidated Framework for Implementation Research (CFIR;<sup>19</sup> Figure 1). The plan-engage-execute-evaluate cycle can assist with the planning and implementation of activities for local and national contexts.

The full Strategy provides detailed implementation plans for each strategy (<https://ibjr.sydney.edu.au/wp-content/uploads/2019/05/National-Osteoarthritis-Strategy.pdf>). We invite healthcare practitioners, including GPs, to follow the relevant recommendations proposed in the Strategy to ensure the provision of appropriate care for people with OA.

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