

**Ben J Smith**

PhD, is Senior Lecturer, Department of Health Science, Monash University, Victoria.

Hidde P van der Ploeg

PhD, is Research Fellow, Centre for Physical Activity and Health, University of Sydney, New South Wales.

Laurien M Buffart

MSc, is a PhD student, Department of Rehabilitation Medicine, Erasmus MC, University Medical Centre Rotterdam, the Netherlands.



Encouraging physical activity

Five steps for GPs

Background

Over half of Australians do not meet physical activity recommendations. General practitioners can play an important role in encouraging physical activity, which would significantly reduce the burden of chronic disease.

Objective

This article outlines steps to guide GPs in their efforts to promote greater physical activity participation among their patients, and identifies resources that will assist GPs to incorporate this into routine practice.

Discussion

The 'five As' model for preventive counselling is applied to the problem of physical inactivity. General practitioners first need to Ask about physical activity at an opportune time during consultations, Assess the patient's physical activity level, and then Advise about the recommended type, intensity and amount of physical activity that is relevant to their needs and life circumstances. An achievable plan for increasing physical activity can be prepared and GPs can Assist by discussing strategies to maintain this and tackle the barriers to activity that may arise. It is also useful to Arrange follow up contact and ongoing support through the practice or external programs and exercise professionals.

■ **The importance of a physically active lifestyle for the Australian population is well known.¹ Over half of Australian adults do not meet physical activity recommendations, which makes this a more prevalent risk factor than obesity, hypertension or smoking.² An inactive lifestyle contributes substantially to the risk of developing cardiovascular disease (CVD), stroke, hypertension, type 2 diabetes mellitus, several forms of cancer, osteoporosis, obesity, falls in the elderly, and poor mental health.**

With most Australians visiting their general practitioner at least once per year and preferring their GP as the main source of physical activity advice,³ GPs could play an important role in increasing population physical activity levels.⁴ The majority of Australian GPs see it as their role to give patients physical activity advice and feel they have sufficient knowledge and confidence to do so.⁵ However, Australian general practice is not yet meeting its potential in disease prevention through physical activity counselling. A number of barriers to preventive counselling have been identified in general practice, including lack of time, low patient and practitioner interest, lack of reimbursement for preventive counselling, and insufficient counselling skills.⁶⁻¹⁰

There have been many physical activity intervention studies in general practice – with a number showing moderate efficacy – and there have been numerous reviews of this literature.¹¹⁻²⁰ The aim of this article is not to provide another comprehensive summary of the literature, but to focus on specific strategies that have the potential to improve the contribution that Australian GPs can make to addressing physical inactivity in the course of routine practice.

How much physical activity is enough?

The physical activity recommendations for different age groups are

Adrian E Bauman

PhD, FAFPHM, is Professor of Public Health, Centre for Physical Activity and Health, University of Sydney, New South Wales. adrianb@health.usyd.edu.au

summarised in *Table 1*. The *National physical activity guidelines for Australians* recommend adults are at least moderately physically active for 30 minutes per day on 5 or more days per week.^{21, 22} This minimum recommended amount will provide most of the physical activity benefits for CVD and diabetes prevention. There is a dose response relationship; more physical activity is usually better. Although the half hour per day minimum should be achievable for most sedentary adults, if people do not meet the recommendation some activity is still better than no activity.

Older adults will also benefit from strength exercises (10–15 repetitions of 8–10 exercises involving major muscle groups) and flexibility exercises for at least 2 days per week. Those at risk of falls should include exercises to improve balance. The recommended amount of physical activity might not be sufficient for obesity prevention. For preventing weight gain, it is recommended to engage in approximately 60 minutes of moderate to vigorous intensity activity on most days of the week; and to sustain weight loss, one should participate in at least 60–90 minutes of moderate intensity activity per day.²³

Among overweight and obese patients, physical activity is often recommended for weight loss. However, even in the absence of weight loss, increasing physical activity can improve metabolic and cardiovascular health, so activity should be encouraged for all patients, irrespective of weight loss.

Who should be encouraged to be more physically active?

All sedentary adults should be advised to become more active 'for life'. This is the majority of patients attending GPs in

Australia, as approximately 65% do not meet the minimal activity recommendation.²⁴ Patients with other chronic disease risk factors (hypertension, metabolic syndrome, high cholesterol or obesity) are priority groups who need intensive physical activity counselling. Finally, patients with an obvious contraindication for physical activity should only participate in medically supervised exercise.

How to get patients more active

Although brief physical activity advice during a regular consultation has some effect on patient's physical activity behaviour, this is usually a short term improvement. However, physical activity advice is a good start and can be supplemented with a number of strategies to achieve long term results. The 'five As' approach to preventive counselling (Ask, Assess, Advise, Assist and Arrange) provides a clear structure for physical activity.

Ask

Ask patients about physical activity when there is the opportunity during consultations. Those most likely to be insufficiently active are people aged 30 years and over, particularly the middle aged (45–59 years), women, and people who are obese.²⁵

Assess

Assess the patient's current physical activity level. A short assessment tool has been developed for this purpose and is available in the clinical software programs used by most GPs (see *Resources*). Inactive patients can also be asked about their readiness to undertake more physical activity to determine whether they:

- have no interest in changing ('pre-contemplators')
- are considering becoming more active in the next 6 months ('contemplators'), or
- are starting to become active ('preparers').

Advise

Advise about the recommended type, intensity and amount of physical

Table 1. Minimum recommended amount of physical activity

	Children and young people (5–18 years) ²⁷	Adults (18–65 years) ²²	Older adults (65+ years) ²⁸
Frequency	Each day	Minimum of 5 days per week	Minimum of 5 days per week
Intensity	Moderate to vigorous	Moderate intensity between 3.0 and 6.0 metabolic equivalent rate*	Moderate intensity at 5–6 on a 10 point scale
Duration	Accumulate at least 60 minutes per day and spend no more than 2 hours per day using electronic media for entertainment	Accumulate at least 30 minutes per day in bouts of at least 10 minutes each	Accumulate at least 30 minutes per day in bouts of at least 10 minutes each
Manage body weight ²³	Prevent weight gain: 60 minutes of moderate to vigorous intensity on most days of the week Sustain weight loss: at least 60–90 minutes of daily moderate intensity physical activity		

* Metabolic equivalent (the ratio of work metabolic rate to a standard resting metabolic rate of 1.0 Kcal/kg/h)

activity that is relevant to the patient's needs and life circumstances. It may be possible to link physical activity with a health benefit of direct relevance to the patient, and in the short term, these include:

- better mood
- reduced stress, and
- improvements to blood pressure and lipids.

Optimally, a personalised physical activity plan should be developed that identifies one or more activities that are practical, and the frequency per week and duration per occasion. Setting short term, achievable targets (eg. 3 x 20 minute walks per week) is preferable at first to help patients grow in confidence, and over time this can be added to in order to reach the guidelines for physical activity participation. Advice can be written down on a prescription using tools such as 'Lifescrpts' or the physical activity module in Medical Director.

Assist

Assist with strategies that will increase the likelihood of success in implementing the plan. Discussing ways to tackle common barriers (eg. lack of time, low energy) is a major task (Table 2). 'No time for exercise', the commonest excuse, is not tenable, as most people

watch television for more than 2 hours each day. It is preferable to elicit the patient's own thoughts about ways to overcome barriers to activity. Other useful strategies are to:

- encourage self monitoring (using pedometers or activity diaries)
- social support (finding a partner or a pet to be active with)
- setting achievable goals, and
- rewarding oneself when a plan is adhered to.

Anticipating situations that may cause a relapse to inactivity (eg. heavy work demands) is helpful.

Arrange

Arrange follow up contact and ongoing support through your practice staff, or by referral to an exercise scientist or community physical activity program. This follow up will reinforce activity patterns and increase the potential for maintenance. Asking patients about their self monitoring may be useful if they used for example, physical activity diaries or pedometers to count their daily steps. For patients with chronic conditions (eg. diabetes, CVD) recall for lifestyle monitoring and follow up is now a Medicare item (EPC 720, 723).

Table 3 shows the major physical activity programs and information databases available throughout Australia. The National

Table 2. Addressing barriers to patient physical activity

Barrier to activity described by the patient	Possible counselling responses
Lack of time	Even short bouts of activity (10 minutes) can be beneficial Add physical activity to your daily routine, such as going for a walk at lunch time or exercising while you watch TV
Not motivated	Link up with a friend – you will help each other There are many moderate intensity activities that are fun (eg. dancing, playing with the children)
Usually too tired	Try being active at times when you are most likely to have the energy Being active can increase your energy levels
Not the sporty type	You do not have to play sport to be active; walking and other moderate intensity activities are also beneficial for your health Make every day activities such as travelling to work or doing the housework a way to be active
Family obligations	Recognise that taking time for physical activity is essential for your health and will help you to fulfil your roles better Talk to your partner, family or friends about taking care of the children while you have a break to be active Try doing active things when looking after the children
Physical limitations	Moderate intensity activities such as walking are very beneficial Water based exercise puts less strain on bones and joints
Lack of support	Explain your interest in exercise to family and friends and ask them to join in or provide support in other ways Find out about local groups and clubs, which might help you to meet others with an interest in physical activity
Cost	There are many free activities, especially walking, that are an excellent way to get exercise Contact your local council to find out about low cost facilities and programs in your area
Feel unsafe in local environment	Link up with a friend for physical activity Find out about local groups and clubs Try to find locations and times for outdoor activity when other people are around



Table 3. Physical activity programs and information databases in Australia

Program	State/territory	Website
Heart Moves Supervised programs for people with chronic disease risk factors and conditions	ACT, NSW, SA, QLD, TAS, VIC, WA	www.heartfoundation.org.au/Professional_Information/Lifestyle_Risk/Physical_Activity/Heartmoves.htm
10,000 Steps Online pedometer challenge	All states	http://10000steps.org.au
Get Active Information and online directory	NSW	www.dsr.nsw.gov.au/active/index.asp
Live Life Well Information and resources	NSW	www.livelifewell.nsw.gov.au/
Just Walk it Information about walking groups	NSW, NT, QLD, SA	www.heartfoundation.org.au/Healthy_Living/Physical_Activity/Walking.htm
Life Be In It Information about events and programs	NT, SA	www.lifebeinitnt.org/ www.sa.lifebeinit.org/
Be Active Information and online directory	SA	www.beactive.com.au/
Get Moving Tasmania Information about events and programs	TAS	www.getmoving.tas.gov.au/
Go For Your Life Information and online directory	VIC	www.goforyourlife.vic.gov.au/
Kinect Australia Information and online directory	VIC	www.vicfit.com.au/infoline/
AusPANet Fortnightly e-newsletter with latest physical activity research and programs	All states	www.heartfoundation.org.au/auspanet
Find 30 Information about events and programs	WA	www.findthirty.com.au/wa.html

Heart Foundation co-ordinates the Heart Moves program for patients with chronic diseases and related risk factors and the Just Walk It program for those interested in joining a walking group. The 10 000 Steps program is growing in popularity, and guides individuals or groups about how to use pedometers to increase their walking. Most of the websites shown in *Table 3* include listings of physical activity programs, facilities and events in the respective areas.

Implementation into general practice

The already busy schedule of GPs warrants good support structures to efficiently integrate physical activity counselling into practice. The role of the GP is initial assessment and brief advice, for every patient; then supportive team efforts may be required. It may be better for practice nurses, exercise counsellors or local health educators to provide detailed follow up and advice.

Development of a practice system to support physical activity promotion and other areas of preventive care will improve the continuity and effectiveness of this area of practice.²⁶ This includes assessment tools, a method of recording and accessing information

on patient behaviours, patient education materials and aids, an up-to-date directory of local physical activity facilities and programs, and a mechanism for recalling patients in need of follow up.

Resources

There are a number of existing supportive structures that can help integrate physical activity counselling into general practice, such as the physical activity module that is integrated into major general practice software packages (eg. Medical Director and Medtech 32), and the Lifescripts resources distributed by the Australian Department of Health and Ageing.

The Lifescripts website (www.health.gov.au/lifescripts) includes a wide range of useful resources and links to support physical activity promotion in general practice.

An online training module about physical activity counselling is being developed through for The Royal Australian College of General Practitioners gplearning website (www.gplearning.com.au) and should be available by mid 2008.

Conflict of interest: none.

References

1. Bauman A, Bellew B, Vita P, Brown W, Owen N. Getting Australia active: towards better practice for the promotion of physical activity. National Public Health Partnership. Melbourne, Australia, March 2002.
2. Mathers CD, Vos ET, Stevenson CE, Begg SJ. The Australian Burden of Disease Study: measuring the loss of health from diseases, injuries and risk factors. *Med J Aust* 2000;172:592–6.
3. Booth ML, Bauman A, Owen N, Gore CJ. Physical activity preferences, preferred sources of assistance, and perceived barriers to increased activity among physically inactive Australians. *Prev Med* 1997;26:131–7.
4. Harris M, Bailey L, Bridges-Webb C, et al. Guideline for prevention activities in general practice. 6th edn. Melbourne: The Royal Australian College of General Practitioners, 2005.
5. van der Ploeg HP, Smith BJ, Stubbs T, Vita P, Holford R, Bauman AE. Physical activity promotion: are family physicians getting the message? *Aust Fam Physician* 2007;36:871–4.
6. Bull FC, Schipper EC, Jamrozik K, Blanksby BA. Beliefs and behaviour of general practitioners regarding promotion of physical activity. *Aust N Z J Public Health* 1995;19:300–4.
7. McKenna J, Naylor PJ, McDowell N. Barriers to physical activity promotion by general practitioners and practice nurses. *Br J Sports Med* 1998;32:242–7.
8. Lawlor DA, Keen S, Neal RD. Increasing population levels of physical activity through primary care: GPs' knowledge, attitudes and self-reported practice. *Fam Pract* 1999;16:250–4.
9. Kennedy MF, Meeuwisse WH. Exercise counselling by family physicians in Canada. *Prev Med* 2003;37:226–32.
10. Eakin EG, Smith BJ, Bauman AE. Evaluating the population health impact of physical activity interventions in primary care: are we asking the right questions? *J Phys Activity and Health* 2005;2:197–215.
11. Smith BJ, Merom D, Harris P, Bauman A. Do primary care interventions to promote physical activity work? Melbourne: The National Institute of Clinical Studies, 2002.
12. Eden KB, Orleans CT, Mulrow CD, Pender NJ, Teutsch SM. Does counseling by clinicians improve physical activity? A summary of the evidence for the US Preventive Services Task Force. *Ann Intern Med* 2002;137:208–15.
13. Lawlor DA, Hanratty B. The effect of physical activity advice given in routine primary care consultations: a systematic review. *J Public Health Med* 2001;23:219–26.
14. Eakin EG, Glasgow RE, Riley KM. Review of primary care-based physical activity intervention studies: effectiveness and implications for practice and future research. *J Fam Pract* 2000;49:158–68.
15. Simons-Morton DG, Calfas KJ, Oldenburg B, Burton NW. Effects of interventions in health care settings on physical activity or cardiorespiratory fitness. *Am J Prev Med* 1998;15:413–30.
16. Eaton CB, Menard LM. A systematic review of physical activity promotion in primary care office settings. *Br J Sports Med* 1998;32:11–6.
17. Riddoch C, Puig-Ribera A, Cooper A. Effectiveness of physical activity promotion schemes in primary care: a review. London: Health Education Authority, 1998.
18. Petrella RJ, Lattanzio CN. Does counseling help patients get active? Systematic review of the literature. *Can Fam Physician* 2002;48:72–80.
19. Ashenden R, Silagy C, Weller D. A systematic review of the effectiveness of promoting lifestyle change in general practice. *Fam Pract* 1997;14:160–76.
20. Sorensen JB, Skovgaard T, Puggaard L. Exercise on prescription in general practice: a systematic review. *Scand J Prim Health Care* 2006;24:69–74.
21. Commonwealth Department of Health and Aged Care. National Physical Activity Guidelines for Australians. Canberra: Department of Health and Aged Care, 1999.
22. Haskell WL, Lee IM, Pate RR, et al. Physical activity and public health: updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Med Sci Sports Exerc* 2007;39:1423–34.
23. US Department of Health and Human Services. Dietary guidelines for Americans, 2005. Available at www.healthier.us.gov/dietaryguidelines.
24. Sayer GP, Britt H, Horn F, et al. Measures of health and health care delivery in general practice in Australia. Canberra: Australian Government Publishing Service, 2000.
25. Armstrong T, Bauman A, Davies J. Physical activity patterns of Australian adults. Results of the 1999 National Physical Activity Survey. Canberra: Australian Institute of Health and Welfare, 2000.
26. Solberg LI, Kottke TE, Conn SA, Brekke ML, Calomeni CA, Conboy KS. Delivering clinical preventive services is a systems problem. *Ann Behav Med* 1997;19:271–8.
27. Department of Health and Ageing, 2005. Australia's physical activity recommendations for children and young people. Available at www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-strateg-active-recommend.htm.
28. Nelson ME, Rejeski WJ, Blair SN, et al. Physical activity and public health in older adults: recommendation from the American College of Sports Medicine and the American Heart Association. *Med Sci Sports Exerc* 2007;39:1435–45.