



**PACE –Canada
Provider-based Assessment for Counselling on Exercise
And Nutrition Adapted for Canadians**

Summary of the Office Process of the PACE-Canada Program:

- 1) Office Process flow chart**
- 2) Provider's Role in PACE-Canada**
- 3) Prioritizing Health Issues**
- 4) Counselling Scenarios**
- 5) Office Staff Role**

SUMMARY OF THE PACE CANADA OFFICE PROCESS

The patient is given the "What's Your PACE?" assessment booklet to complete while in the waiting room (approximately 2-3 minutes).

This form assesses current physical activity habits, readiness to make changes and risks for participation in activity. It also directs the patient to complete a one-page tailored protocol appropriate to their stage of change. The **PACE Canada** assessment is returned to the receptionist.

The **PACE Canada** assessment form and completed counseling protocol are placed with the medical record for the provider to review prior to entering the exam room.

During the exam, the provider reviews the patient's assessment form and counseling protocol, and highlights items of particular relevance (approximately 1-5 minutes).

If there are contraindications to physical activity, make a referral for additional evaluation or treatment.

Otherwise...

- Review what the patient has written.
- Emphasize the main message appropriate for their stage of change.
- Discuss and agree on modifications to the plan, if needed.
- Complete the part that is for "**Provider's Use Only**" (i.e., the specific recommendations, signature).
- Give a copy of the protocol to the patient to take home.
- You may want to copy the protocol for your records. (For other options for record keeping, see "**Record Keeping and Follow-Up**").

FOLLOW-UP

Consistent follow-up is critical to the success of any counseling. The development of standardized assessment and counseling protocols is an important first step toward increasing the frequency and adequacy of primary care counseling about this crucial health-enhancing behaviour. Providers are encouraged to monitor progress by specifically addressing previous physical activity goals through an appropriate follow-up strategy. Here are some suggestions:

1. **Follow-up Visit.**

If you are fortunate enough to be able to make follow-up appointments to discuss progress on patient's physical activity goals, please do so. Review your copy of their protocol (or your progress notes from that visit) to see how they are doing. Discuss any problems they have encountered and work with the patient to identify potential solutions. Re-administer the PACE Canada assessment so you will know whether to revise their goal or keep the old goal.

2. **Phone Follow-up.**

Since most clinical settings do not have the luxury of making an appointment to discuss progress on PACE Canada goals, a brief phone call (5 minutes) may be placed to the

patient about two weeks after their office visit. The purpose of the call is to inquire about progress toward their goal, offer support and help the patient solve problems they may encounter. Another member of the team may make these follow-up calls.

3. Postcard Follow-up.

In some clinical settings even phone follow-up is not realistic. Mailing a postcard about two weeks after the office visit will remind the patient of their goals and that physical activity is an important health topic.

COUNSELING OPTIONS

PACE Canada materials can be used in a variety of ways and in a variety of settings. One scenario is for the provider to do most or all of the counseling. However, if you are in a setting where there are allied health professionals available, they could do some of the counseling. Here are some examples of how the materials might be used:

Scenario 1: Primary health care provider does all the counseling

This method is considered to be the most effective use of the **PACE Canada** materials.

1. The receptionist gives the assessment booklet to patients scheduled for annual physicals.
2. The patient completes the **PACE Canada** assessment and a one page protocol before seeing the provider.
3. The completed assessment booklet is then given to the provider (directly or through placing it in the chart) prior to seeing the patient. By glancing at the assessment form and the partially completed protocol, and briefly reviewing the chart before entering the room, the health care provider knows the patient's current level of physical activity, their present stage of change, and their cardiovascular risk factors. During the visit, the provider makes appropriate recommendations and reviews the points on the protocol. (Time by provider: approximately 2 to 5 minutes.)

Scenario 2: Primary health care provider does some of the counseling

The assessment form and counseling protocol will be completed by the patient and reviewed by another staff member before the patient sees the provider. It is recommended that only the health care provider review the patient's risk status and make recommendations about physical activity. There are two reasons for the provider to do this portion of the counseling. First, they are most qualified to do so, and second, it may have the greatest patient effect.

Remember that an important component of this intervention is that the provider has tremendous influence on their patient's health habits. Therefore, minimal involvement from the provider includes making the recommendation. For the remaining counseling, the patient may then be referred to a health educator, nurse practitioner, or provider assistant who has been trained to use the **PACE Canada** program. (Time by provider: approximately 1 to 2 minutes.)

RECORD KEEPING

Medical record systems differ; here are several options for recording information in medical records.

1. Keep a copy of the assessment form in the medical record. This indicates the patient's level of activity, stage of change, and risk profile (PAR-Q). To document your recommendations and what you discussed, keep a copy of the counseling protocol (including your recommendations) in the chart as well.
2. It is not always desirable to add additional sheets of paper to already cumbersome charts. Instead you may wish to record the following in your progress note: current activity pattern; assessment score indicating stage, any pertinent information regarding risk (that is not elsewhere in the chart), and your activity recommendations based on the issues that you discussed.
An example is included in the the laminated tool kit materials and in [Appendix K](#) and can be used as a template.

RECOMMENDATIONS FOR OFFICE STAFF

It is essential to fully involve office staff in the PACE Canada process. PACE Canada works best as a genuine team effort. The following is a list of tips, which can help to make the implementation of PACE Canada in your office go as smoothly as possible:

1. Select an office staff coordinator who will be responsible for overseeing the PACE Canada office process.
2. Decide how PACE Canada can most easily be integrated into your practice.
3. Specify the role of each staff member who will be involved in the PACE Canada process.
4. Assemble, organize, and conveniently locate all relevant materials (i.e., assessment forms, protocols, and patient resources).
5. Familiarize staff with the PACE Canada materials and procedures.
6. In advance, identify the apparently healthy patients who will be given a PACE Canada assessment form.
7. Prepare their charts by attaching the assessment form ahead of time.
8. Adopt the PACE Canada program recommendations yourself, and encourage your staff to do the same. You are important role models.

How to Use the PACE *Canada* Counseling Protocols

PACE *Canada* has been designed so that busy health care providers and staff can incorporate physical activity counseling into their practice settings despite pressing time constraints. **PACE *Canada*** uses simple forms to guide the brief counseling.

PACE *Canada* counseling follows five steps:

4. Assess risk factors using patient's responses to PAR-Q, and flowchart "Determining Risk for Cardiovascular Event" (Assessment Booklet-page 1).
5. Determine the patient's current activity profile and Stage of Readiness to Change (Assessment Booklet-page 2).
6. Based on their score on the Stage of Readiness to Change question, check patient has completed correct protocol. (Assessment Booklet-page 3, 4 or 5).
7. Counsel patient and sign recommendation (Assessment Booklet-bottom of page 3, 4 or 5).
8. Arrange for any referrals and follow-up.

The **PACE Canada** counseling tools include an assessment booklet to be filled in by the patient. The "What's Your PACE?" Assessment Booklet is used by health-providers to determine their patients' risk, stage of readiness to change, and appropriate counseling protocols.

Physical Activity Readiness Questionnaire
(Assessment Booklet, page 1)

For most people being active should not pose a problem. Some people may require additional advice or testing before beginning their activity program. The brief "Physical Activity Readiness Questionnaire" (PAR-Q) included at the front of the Assessment booklet determines the risks of participation in physical activity. Section 5 of this training module addresses the issues surrounding risk assessment in greater detail.

"What is Your PACE?" Assessment Form
(Assessment Booklet, page2)

This short assessment tool ("**What's Your PACE?**") is completed by the patient in the waiting room in 1-2 minutes. It determines your patient's current level of physical activity and readiness to change.

PACE ASSESSMENT

Stage	Counseling Protocol	Proportion of Practice
No.1: Not ready to change	"Rethinking Your Lifestyle?"	10%
No.2: Ready to change	"Planning the First Step"	60%
No.3: Active (meets guidelines)	"Keeping the PACE"	30%

The PACE score determined through completion of the "**What is Your PACE**" Assessment Form identifies your patients' stage of readiness to change and directs them to the appropriate counseling protocol.

PACE Physical Activity Counseling Protocols

Pages 3, 4 and 5 of the "What's Your PACE?" Assessment Booklet contain three simple protocols, designed to address different patient needs at each stage of change. The protocols are interactive to stimulate patient participation. Each protocol is designed so the provider will be able to tailor recommendations to better meet the needs of each patient.

- **Protocol No. 1: Rethinking Your Lifestyle**
(Assessment booklet - page 3) - for patients who are inactive and not ready to change
- **Protocol No. 2: Planning the First Step**
(Assessment booklet - page 4) - for patients who are inactive but ready to become regularly active
- **Protocol No. 3: Keeping the PACE**
(Assessment booklet - page 5) - for patients who are regularly active

These protocols are the key to the **PACE Canada** program. They are based on the best behavioural science theories and research. When you follow the protocols you are delivering effective counseling for patients in each stage.

Using Protocol No. 1: "Rethinking Your Lifestyle" (page3)

Summary

People in this stage of change may realize a change is indicated, but are not ready to consider making a change in their health behaviour (e.g., "I've never been an active person and I have no desire to start now.")

This protocol is for your patients who are not currently active and have no plans to start a program. It is important that they hear from you that physical activity is important and that they should consider starting regular activity. This protocol summarizes the benefits of physical activity and personalizes the reasons to consider starting an activity program.

Counseling patients at Stage 1 should be brief (1 minute)

GOAL:

To encourage patients to consider beginning an activity program.

HOW?

[Emphasize the Many Benefits of Physical Activity](#)

[Relate the Benefits to the Patient's Personal Health Status](#)

[Have Patient List Personal Reasons to be Active](#)

[Have Patient Begin to Identify Barriers to Physical Activity](#)

Emphasize the Many Benefits of Physical Activity

Rationale:

While most people know that regular physical activity is an important part of maintaining good health, they are more likely to believe it if their health-provider confirms it.

Example:

"You know, Mrs. Smith, being physically active is very important for your health."

Relate the Benefits to the Patient's Personal Health Status**Rationale:**

Patients may understand that it is a good idea to be active for some people, but they may not fully appreciate the specific benefits that they personally can expect to derive from becoming more physically active. Conversely, they may not be fully aware of the health risks of remaining sedentary. The provider is in a good position to "personalize the risk" of inactivity. Since you know their medical history, discuss ways that physical activity might improve their health.

Example:

"Walking regularly would help you lose weight and keep it off, and that would help lower your blood pressure. I know that you've been concerned about these things and this is one way you can do something about it."

Have Patient List Personal Reasons to be Active**Rationale:**

People will engage in activity if they get something they want by doing it. Good health is one reason many people decide to become active. Improved appearance, energy and general sense of well-being are also important motivators. For older adults, improvements in functional capacity are often important reasons to become active. Ask about these personal reasons

Example:

*"What would encourage you to be more active?"
"How might you benefit from being physically active?"*

Have Patient Begin to Identify Barriers to Physical Activity**Rationale:**

There are many reasons why people do not like to be active. They may feel self-conscious because they lack certain skills, or believe they are incapable of doing certain activities, or feel "too old". Asking about their reasons will encourage the patient to re-consider their choice not to be active, and may open the door to problem-solving some of their barriers.

Example:

*"What is it that is keeping you from being more active?"
"What is it about physical activity that you don't like?" "Can you think of something that would be easy for you to do, like walking for 10 minutes each day?"*

Using Protocol No. 2: "Planning the First Step" (page4)**Summary**

People in this stage know they need to be active. They are **thinking about making a health behaviour change**, but may not have the skills, knowledge, or incentive to do so (e.g., "I've been

wanting to start an exercise program, but I just can't find the time."). Some have already started to increase their physical activity.

This protocol is designed for your *patients who are either not active or are irregularly active, but are interested in starting a regular activity program*. This is a group that typically is ready for change, so time spent with these patients can be very beneficial and satisfying for you both!

This protocol guides the patient through the creation of an activity program. Not only does it help them identify the type, frequency, intensity, and duration of an activity, but it also helps them identify personal benefits, sources of social support, and solutions to potential barriers to activity.

For maximum effectiveness, you should summarize the patient's plan, make any necessary adjustments, and elicit the patient's agreement to try the plan for a specified period of time. You and the patient should work together on completing and signing the brief form that outlines their activity plan.

Creating an Activity Program

GOAL:

Praise the patient for taking that important first step. Make sure the plan is realistic. Make a specific plan for an activity program that includes behaviour change techniques. Patient and provider sign plan to indicate agreement.

HOW?

Give Clear Advice to Begin a Physical Activity Program

Have Patient Identify Benefits They Hope to Obtain From Physical Activity

Patient Chooses a Preferred and Appropriate Activity

Have Patient Identify Sources of Social Support

Have Patient Identify Barriers to Physical Activity*

Have Patient Assess Their Confidence in Being Able to do Regular Physical Activity

Provider and Patient Sign Agreement

Follow-up With Physical Activity at Future Appointments

Reward Patient with Praise

Give Clear Advice to Begin a Physical Activity Program

Rationale:

Again, health care providers are in a uniquely effective position to influence the health behaviour of their patients. Research shows that doctors were the most frequently cited source of support and encouragement to be active by those Canadians who increased their level of physical activity.³²

Encouraging patients to participate in physical activity will get them to think seriously about this issue.

Example:

"Mr. Jones, I'm glad that you are thinking about starting a walking program. It is one of the best things you can do for your cardiovascular and general health. I recommend you become more physically active, and I'll help you get started!"

Have Patient Identify Benefits They Hope to Obtain From Physical Activity

Rationale:

People are more likely to do regular physical activity if they believe they will get something positive in return. Clarifying these personal reasons will help your patient get interested and be more likely to start.

Example:

"What led you to think about becoming more active?"

"What do you hope to gain by being more physically active?"

Patient Chooses a Preferred and Appropriate Activity

Rationale:

Patients will be more compliant with recommendations that you make if they play a role in determining their physical activity plans. Also, we know that people are more likely to continue to be active if they choose an activity that is both enjoyable and convenient.^{3,5,6,8,9,31-34}

Example:

Make recommendations about frequency, duration, and intensity based on your review of their risk factors. Encourage them not to do more than what you recommend. Use Canada's Guide to Physical Activity and Healthy Active Living (or Canada's Guide for Older Adults) to develop a realistic plan.

Ask:

"What types of activities do you enjoy doing?"

"What have you done in the past?"

"What amount of activity are you confident you can do right now?"

"Let's begin there."

Ask specifics:

"What type of activity do you enjoy?"

"Where will you do your activity?"

"When will you be active?"

"Who will offer your support?"

"How long do you plan to do your activity?"

Have Patient Identify Sources of Social Support

Rationale:

Having social support for exercise is associated with increased adherence.^{3,6,8,9,34-37}

Being active with someone, having someone else do a chore in order to free up more time for physical activity, or having someone baby-sit while they are active are all forms of positive social support. Helping older adults link up with appropriate community programs can often provide a strong source of social support.

Sometimes people do things to sabotage the patient's efforts, or they do something that is not helpful (e.g., nagging, discouraging - "you're too old to be doing that kind of thing"). In these cases, help patients to identify and overcome these negative influences.

Example:

"Who will help you with your physical activity program? Specifically, what can you ask them to do to help you? What kind of things would you specifically not like them to do?"

Have Patient Identify Barriers to Physical Activity*

Rationale:

There are many reasons why people are not physically active, even though they would like to be. Knowing what they are is the first step toward getting around these obstacles.

Example:

"What is it that is keeping you from being more active now?"

"How might you avoid that this time?"

*Note:

Do not let the patient put you in the position of coming up with the answers for them. Some may have the standard "Yes, but..." response to any suggestion that you may make.

If you get caught in this cycle, turn it around and ask them to make suggestions. If it begins to take too much time or they cannot think of any solutions, refer them to the tips at the back of the assessment booklet, or to those included in [Canada's Physical Activity Guide](#).

Have Patient Assess Their Confidence in Being Able to do Regular Physical Activity

Rationale:

People are pretty good at predicting their own behaviour. They can identify what aspects of the program are likely to give them trouble.

Assess the patient's confidence they can do the physical activity program you have outlined. If they are not very confident that they can stick with their plan, revise it to make it more do-able. For previously sedentary patients, many find it within their ability to start with 10 minutes of easy activity each day, (e.g. a 10 minute walk) and build up from there.

Example:

"On a scale of 1 to 5, how confident are you that you can do this physical activity program for the next 3 months?"

Provider and Patient Sign Agreement

Rationale:

Having the patient and provider signatures is a powerful symbol of both parties' commitment to the plan.

Briefly summarize the main changes that were agreed upon and the minimum length of time the patient will work on the plan.

Example:

"I have summarized your physical activity changes here. We'll both sign to show we agree this is important for you and that you will try it over the next month. I'll be interested in your progress"

Follow-up With Physical Activity at Future Appointments

Rationale:

One way to improve activity adherence is to ask about it at each visit. This tells the patient that activity is an important part of maintaining their good health.

Under certain conditions, follow-up visits regarding physical activity may be reimbursable particularly if it is part of a larger follow-up or monitoring strategy for chronic conditions. Nurses can also follow-up with a phone call or a post card to monitor progress.

Example:

"Let's talk about this again in 6 weeks at your follow-up appointment."

Reward Patient with Praise**Rationale:**

As a health care provider, your opinion is very important to most patients.

Since praise is a much more effective motivator than punishment, be liberal with praise of your patients. Tell them when you think they are doing a good job.

Example:

"I am pleased to hear that you are ready to do some regular activity each week. Getting enough physical activity is very important for your health, and I'm behind you all the way. Good job!"

Using Protocol No. 3: "Keeping the PACE" (page 5)**Summary**

People in this stage are ***doing something***. They may be active at less than the recommended level (see Canada's Physical Activity Guide) or they may be maintaining an adequate routine of physical activity (e.g., "Yes, I am active a few times each week and I enjoy it.").

This protocol is designed for your ***patients who are already involved in regular physical activity***. This protocol helps you reinforce the benefits of activity and applaud their success. It also helps patients plan ahead for the resumption of regular activity, after the inevitable periodic lapses associated with busy lifestyles.

GOAL:

Support the patient in continuing their activity program

Using Protocol No. 3: "Keeping the PACE" (page5)**Supporting the patient in continuing their activity program****HOW?**

- **Reward them with praise**
- **Review Patient's Current Activity Program**
- **Assist Patients in Continuing Physical Activity Over the Long Term**
- **Have the Patient Identify Sources of Social Support**
- **Have Patient Identify Barriers to Activity**

- [Help Patient Develop Solutions to Barriers](#)
- [Have Patients Rate Their Confidence in Being Able to Continue Regular Physical Activity](#)
- [Follow-up With Physical Activity at Future Appointments](#)

Reward them with praise

Rationale:

One of the main messages you want to get across to someone in this stage is that you are glad they are doing something active. Beginning your discussion with praise will help get this message across, and your patients will be more likely to continue being active.

Example:

"I am happy that you are physically active on a regular basis. Finding time for activity can be a challenge sometimes but it is very important for your health. I'm behind you all the way. Good Job! Let's review what you are doing."

Review Patient's Current Activity Program

Rationale:

It is important to know what activity your patients are doing so you can either recommend changes or tell them that they are on the right track. Look at their responses on page 2 of the assessment booklet to assess the frequency, duration, and intensity of their current activity. Activities that develop and maintain strength, balance and flexibility are also important, especially in maintaining functional capacity in older adults. Assess the balance of these types of activities.

Example:

"I see here that you are doing some moderate activity 4 times a week for half an hour. That's a good level to stay with. Keep up the good work."

or

"I see that you are walking every day. That's great. Are you doing anything in particular to keep flexible and limber?"

or

"I see that you are riding your bike 2 times per week. Have you considered adding another activity time to your schedule? This would certainly benefit your health."

or

"I see that you engage in vigorous physical activities 6 or 7 days per week. That's a lot of activity. Have you encountered any problems or injuries?"

Assist Patients in Continuing Physical Activity Over the Long Term

Rationale:

Almost anyone can begin a diet, stop smoking for a short period of time, or begin an activity program. The problem is that people can and do periodically "relapse" back into inactivity.

Generally it takes at least **six months** of doing a new health behaviour for it to become a "habit" that is likely to become an integrated part of one's lifestyle over time.

Our goal for people in this group is to help them make physical activity a habit, and to minimize any time they spend in relapse.

The following suggestions relate to "Relapse Prevention". Although they may be most salient for patients who have been regularly physically active for less than six months, a review of these relapse prevention skills can be very helpful even for long-time exercisers. Relapse prevention research indicates that the following strategies help people to maintain positive health behaviour changes.

Have the Patient Identify Sources of Social Support

Rationale:

Again, social support is one of the main variables that differentiates between those who continue to be active and those who drop out. Being active with someone helps many people. Even if patients prefer to be active alone, they can ask someone to do a chore to free up time for activity, or to watch their children while they are active. Older adults may need help with transport to and from community-based programs. They can also ask for words of encouragement from friends and family, when they report meeting their physical activity goals. The role of social support cannot be underestimated.

Example:

"Who will help (has helped) you stick to your physical activity program? Be clear with them about what kinds of things they can do to help you. Tell them what kind of things you would specifically not like them to do"

Have Patient Identify Barriers to Activity

Rationale:

As previously mentioned, knowing what the barriers are is the first step toward getting around them. Advance planning about how to deal with barriers is the best defense.

Example:

"What kinds of things can interfere with your activity routine?"

"What caused you to stop (miss your regular session) last time?"

Help Patient Develop Solutions to Barriers

Rationale:

For every barrier there is an equally compelling reason to be active. And there is a way of getting around that barrier. You can help your patient find creative ways to avoid or get rid of barriers to being active. If your patients do not have a plan when they leave your office, they are less likely to be successful.

Refer patients to the tips included at the back of the booklet, as well as those included in [Canada's Physical Activity Guide](#).

Example:

"What can you do to avoid this roadblock the next time it occurs?"

"How did you get back on track last time your routine was disrupted?"

If you start to have problems, do what worked before"

Have Patients Rate Their Confidence in Being Able to Continue Regular Physical Activity

Rationale:

Again, a patient's level of confidence that he/she can do a certain task is associated with their ultimate performance. If a patient is not very certain that they can continue their regular physical activity, help them problem-solve to remove the barriers they anticipate, or adjust their plans until they are very confident they will be successful.

Example:

"On a scale of 1 to 10, how confident are you that you can continue doing regular physical activity for the next 3 months?"

Follow-up With Physical Activity at Future Appointments

Rationale:

Tell your patient that you will ask about physical activity at their next visit. This tells the patient that activity is an important part of maintaining their good health.

Example:

"Let's talk about this again the next time I see you."

It is useful to review the contents of Appendices E and F at this time.

Note:

Taking links to these appendices will open a new browser window. When you have finished reviewing the material in the appendices, re-load **this** browser window, (which will be at the bottom of your screen) and click the "Test Yourself" button to continue.

- [Appendix D - Patient's Common Physical Activity Questions and Suggested Responses](#)
- [Appendix E - Common Patient Barriers](#)

APPENDIX D

Patient's Common Physical Activity Questions and Suggested Responses

As you counsel patients about physical activity, certain questions or concerns may be brought up. A person's intention to be physically active is related to their attitudes toward being active and perceived social norms regarding physical activity.⁵⁷ Taking the time to listen to their concerns and clarify the perceived risks and benefits of physical activity may influence their degree of commitment to a more active lifestyle. The following is an overview of the most common patient questions and sample responses.

Who needs to be physically active?

Every person can benefit from increasing their daily level of physical activity.

Note: Even asymptomatic patients with two or more risk factors (e.g., hypertension, obesity, smoking) can benefit from starting or continuing moderate (comfortable) physical activity. This does not require extensive evaluation.

Aren't I too old to be thinking about doing this kind of stuff?

On the contrary - older adults stand to gain many benefits from being more active, including improved physical function, reduced risk of falls, and greater independence.

Which is the best physical activity?

There is no "best" activity; any activity that is enjoyable, convenient, and can be done regularly is the best activity for you. Ideally, you should eventually include 4 or more sessions each week of moderate intensity activities, which take about as much effort as walking briskly, or more vigorous activities, like running, cross-country skiing, and cycling. (For older adults, daily moderate activity of 30 minutes or more is recommended as an ideal). However, it is fine to start with shorter bouts of lighter activity done every day, and then build up gradually to more moderate or vigorous activities at a pace that is comfortable for you. Remember that every bit of activity you do will benefit your health.

How often should I be active?

If you choose lighter activities, ideally you should eventually accumulate 60 minutes of activity every day. This can be done in a single session, or in several shorter sessions of about 10 minutes each. If you choose activities that require greater effort (moderate or vigorous) aim for 4 or more 30 minute sessions each week.

Note that for older adults, it is recommended they begin with shorter daily bouts of lighter activity and build up to a total of 30-60 minutes or more of moderate daily activity. Again, this can be accumulated in several shorter bouts of 10 minutes.

Where should I be physically active?

Wherever it is convenient and safe, and you feel comfortable. You can be active at home, in your neighborhood, at gyms, at community centres, or by walking laps at the shopping mall!

Why should I become physically active?

Physical activity can significantly improve the quality of your daily life, by making the routine activities of daily living easier and more enjoyable.

There are many health-related benefits of activity including: decreased stress and risk for cardiovascular disease and other chronic diseases, weight loss/maintenance, improved sense of well being, and increased energy and productivity.

How do I start?

Use the PACE *Canada* worksheet along with my advice to plan an activity routine that is right for you. If you are inactive, start with a short daily walk. Start slowly and listen to your body. The pace should be comfortable.

Ask a family member or friend to become an activity buddy, or to help you free up time to be active by helping with chores, baby-sitting children, etc.

Note: In addition to having questions about physical activity, some patients may convey worries or barriers to being active. As identified in the 1995 Physical Activity Monitor, the major barriers to physical activity experienced by more than 50% of the 2,500 Canadians surveyed were lack of time, lack of energy and lack of motivation. Moderate barriers included the excessive cost associated with physical activity and an existing long-term illness or injury.¹¹ For older adults, illness, disability, a lack of skills and concerns about injury and personal safety are important concerns. Be prepared to discuss these concerns with your patients and help them work around these barriers, disabilities, or limitations.

APPENDIX E

Common Patient Barriers

I'm too busy or don't have enough time to be active.

Take the time to broaden the patient's perception of what constitutes "legitimate" physical activity (i.e., physical activity that should result in health benefits).

For example, all activity done on a regular basis "counts" towards better health - even lighter physical activities, if undertaken regularly. Start slowly and add time or increase the level of effort as you go along. Commit to doing it just 2 or 3 times per week for 10 minutes at a time.

Stick to that plan for 2 weeks, then re-evaluate and make a new plan if you feel ready.

Don't worry about doing it perfectly. Developing the habit of being active is the most important thing for you right now. So if you fall short a few minutes, or you walk 2 times this week instead of three, that's okay. Ultimately, you may want to try more intense activities, for longer periods of time. A good goal is to aim for 4 or more sessions a week for 30 minutes each session. (Again for older adults, the ideal goal to aim for is to accumulate 30-60 minutes of moderate activity daily, which for this age-group typically can be achieved by walking at a steady pace).

Plan your activity. Schedule this time just as you would your doctor's appointment.

Ask a family member or another friend to help you free up time, or to keep you company when you walk [or do your activity]. (As applicable: Can they baby-sit children or complete errands or chores for you, so that you have more time for activity?)

Think of this advice as a prescription from me.

I'm too tired at the end of my day to be active.

Surprisingly, you will notice that after you have been regularly active for 2-3 weeks, you will begin to be more energized, not less. Physical activity also is great way to reduce or deal with stress, which can be a real energy drain. Try being active at other times during the day, when you have the most energy.

I don't like to be active.

Physical activity doesn't have to be boring or hard work. Choose an activity that you enjoy. You will be more likely to stick with it if you choose something you like. Find a family member or friend to be active with you. It will become much more enjoyable as time goes by. In fact, many people who initially really hate it, come to enjoy it. Focus on what you will gain from activity (e.g., more energy, improved health, body image). Make a list of benefits that are important to you, and put it where you will see it often.

I'm afraid I might hurt myself.

A low- to moderate- level intensity program is very safe, and you can get the health-related benefits of physical activity at this level of intensity. It would be extremely uncommon for you to hurt yourself if you carefully followed my recommendations. Inform patients how to monitor their heart rate during physical activity or how to use the "talk test" (i.e., being able to carry on a conversation while exercising). Starting slowly and progressing slowly is your best defence against injury.

I have "bad knees" and I'm afraid I'll get arthritis.

If you already have arthritis, depending on the severity, walking or non-weight bearing physical activity such as swimming, aquatic exercise, or biking is beneficial. For many patients with "bad knees" or arthritis, water aerobics has been extremely therapeutic because it is non-weight

bearing, and does not cause stress on the joints. Physical activity does not cause arthritis! In fact, physical activity is an important component of arthritis management and treatment during the non-acute phases. However, you should refrain from physical activity during arthritis flare-ups. Once an episode is over, you may safely return to your favorite activity. Most discomfort resulting from activity (such as mild muscle soreness) comes from over-use (too much, too soon). So, start slowly and gradually build up your activity level, to help prevent or minimize this problem.

Key Physical Activity Concepts

The following section provides information about several key physical activity concepts:

9. Practical Advice on Potential Medical Complications
10. Risk Assessment Recommendations
11. Canadian Recommendations and Guidelines for Physical Activity
12. Criteria for Improving Cardio-respiratory Fitness
13. Criteria for Improving Flexibility, Muscular Strength and Muscular Endurance, and
14. A Glossary of Physical Activity Terms

PRACTICAL ADVICE ON POTENTIAL MEDICAL COMPLICATIONS OF PHYSICAL ACTIVITY

Although the toll of inactivity upon health status typically outweighs the risks by a wide margin, physical activity risks are briefly reviewed on the following pages:

Sudden Death **Musculoskeletal Injuries**

Sudden Death

Sudden cardiac deaths, though extremely rare, have been associated most commonly with vigorous activity and not moderate activity. Studies have shown that:

- The risk of sudden death was slightly elevated during exercise for regular exercisers. However, the overall mortality of habitually active men was decreased by 40% over their sedentary counterparts.³⁸
- In Canada, death attributable to sporting accidents was reported at .058% of all deaths, or 58 deaths/100,000 per annum. Therefore, the risk of dying while playing sport is extremely low.³⁹ Moreover, although this number is low, some of these deaths are needless and could be avoided using common safety practices (i.e., equipment and road safety).
- The incidence of sudden death associated with running has been estimated at 1 per 360,000 hours of jogging. The majority of deaths were secondary to CHD. In approximately 40% of the cases of death, a premortem diagnosis of CHD would have been possible.⁴⁰
- In the American Heart Association's Medical/Scientific Statement, an average taken from four different studies showed a rate of 1 death per 565,000 hours of activity.⁴¹

To summarize: research supports the premise that people do not die from being physically active; they die from coronary heart disease.

Key Physical Activity Concepts

Musculoskeletal Injuries

It is a common misconception that physical activity will cause arthritis or permanently damage joints. However:

- Research indicates that runners who had been running for many years had no more problems with arthritis than sedentary people of the same age. The risks of injury due to physical activity are generally associated with high levels of physical activity. For runners, musculoskeletal injury rates increase greatly above 20 miles per week (33 km. per week).⁴²
- Research has suggested that aerobic activity, flexibility training and strength training are an important part of maintenance treatment for arthritis patients. For example, one recent study with older adults with knee osteoarthritis found that both aerobic training and resistance training were associated with significant decreases in knee pain and self-reported physical disability. Compared to a control condition group, those who engaged in aerobic or resistance training also exhibited improved performance walking and needed less time to descend stairs, lift and carry 10 pounds, and get in and out of cars than their control condition counterparts.⁴³
For patients with arthritis, low impact or non-weight bearing activities like swimming are often recommended during stable periods. During acute arthritis attacks, physical activity is temporarily discontinued until the exacerbation period resolves.
- Some patients worry about beginning to exercise because they hear about high-profile athletes suffering from sports-related injuries. These competitive athletes are at the extreme end of the spectrum in terms of intensity, frequency, and duration of activity. Those in aggressive contact sports (such as football and hockey) are also at greater risk of injury due to the nature of their sports.

High-profile athletes often cannot allow sufficient time for their bodies to recover between bouts of strenuous activity and injuries from high contact sports. In contrast, if you are suggesting regular, safe levels and types of activity for your patients, following an appropriate program and progressing slowly will allow them to minimize the risk of injuries, while gaining many benefits.

- Patients may also be concerned that physical activity will cause chronic muscle soreness. When patients become more regularly active it is possible that they will experience mild muscle aches and pains. Soreness can be minimized by:
 1. Starting sedentary patients on low intensity levels and building intensity over several weeks,
 2. Keeping sessions short (i.e., 10 minutes) for beginners or poorly conditioned patients. Sessions can be done once or twice a day until the patient's conditioning improves, and
 3. Having patients begin activity sessions with a warm-up and end them with a cool-down period.

One does not need to be an "athlete" to gain the health benefits of regular activity. Participating in regular moderate physical activity is not associated with significant risk for injury or sudden death. The **PACE Canada** protocols recommend starting sedentary patients at a low intensity program and advancing them slowly to a moderate level of activity.

MORE ABOUT THE CURRENT PHYSICAL ACTIVITY RECOMMENDATIONS

Risk Assessment

This section presents a protocol that providers can use to safely and effectively assess a patient's potential risk profile before counseling about physical activity. The following key points are the building blocks of this protocol.

- The most serious risk of physical activity - sudden death due to underlying cardiovascular disease - is very rare with low or moderate intensity activities.
- Most patients do not need to participate in strenuous exercise. Many of the health benefits of exercise can be obtained from low to moderate levels of activity.
- The most common risk associated with physical activity is injury to the musculoskeletal system.
- This intervention is intended to be used with "apparently healthy adults". Those with signs and symptoms of cardiovascular disease should be thoroughly evaluated (e.g. comprehensive fitness appraisal by a registered appraiser) and considered for an exercise tolerance test before any physical activity program is suggested.
- Even if your patient has several risk factors for cardiovascular disease it is safe to begin a regular program of light to moderate physical activity.
- For the majority of patients, risk assessment can be done quickly and effectively without expensive or sophisticated testing by using two simple tools:
 1. the patient's medical chart, and
 2. the Physical Activity Readiness Questionnaire (PAR-Q) Scale.
- The PAR-Q Scale was developed by the Canadian Society for Exercise Physiology to detect relevant problems that patients under age 70 may not have discussed previously with their healthcare provider. The PACE Canada program utilizes an adapted version of this measure.

The primary goal of the risk assessment is to determine the patient's risk for a cardiovascular event. Consider these factors and potential sources of information about risk:

1. The patient's medical chart:

Ascertain the presence or absence of these major cardiovascular risk factors:

- Smoking
- Hypertension

- Hypercholesterolemia >240
- Positive family history
- Diabetes

The medical chart history may also provide information regarding other problems (i.e., obesity, respiratory illness, or musculoskeletal problems) that may have an impact on your recommendations.

2. The PAR-Q Screening Questionnaire:

The PAR-Q is a questionnaire that was developed in Canada and is available through the Canadian Society for Exercise Physiology for screening large, adult populations prior to initiation of physical activity. The purpose is to detect those people who need to be evaluated by a provider before starting an activity program.

This brief questionnaire has been shown to be a very effective screening tool and is widely accepted and utilized. The PAR-Q is provided as a back up to elicit information on any problems that may not have been previously known or documented. A modified version of the PAR-Q is included on the PACE Canada assessment form and should be completed by the patient before they see the health care provider.

Please visit [Appendix G](#) to view the PACE Canada modified PAR-Q.

Based on the clinical context in which they occur, the Physical Activity Readiness Questionnaire (PAR-Q) suggests that if your patient has any of the signs or symptoms of cardiovascular disease outlined below, you should consider an exercise tolerance test (ETT) before recommending higher intensity physical activity.

SUGGESTIVE OF CARDIOPULMONARY OR METABOLIC DISEASE*

1. Pain, discomfort (or other anginal equivalent) in the chest, neck, jaw, arms, or other areas that may be ischemic in nature
2. Shortness of breath at rest or with mild exertion
3. Dizziness or syncope
4. Orthopnea or paroxysmal nocturnal dyspnea
5. Ankle edema
6. Palpitations or tachycardia
7. Intermittent claudication
8. Known heart murmur
9. Unusual fatigue or shortness of breath with usual activities

** These symptoms must be interpreted in the clinical context in which they appear, since they are not all specific for cardiopulmonary or metabolic disease (Table taken with permission from Guidelines for Exercise Testing and Prescription, 5th Edition, 1995, American College of Sports Medicine.).⁴⁵*

If your patients are "apparently healthy" and have fewer than two major risk factors for cardiovascular disease, then they are categorized by age. For men under 40 and women under 50 years of age, there are no limitations. They can safely begin or continue a program of moderate or

vigorous activity. If they exceed the age limits (men 40 and women 50), it is safe to limit your recommendations to moderate activity (50% to 70% maximum heart rate) for both genders. Patients in this group who wish to participate in vigorous or competitive activities should be considered for an ETT screening.

If your patients are "apparently healthy" but have two or more major risk factors for cardiovascular disease they can safely be started on a program of moderate activity. They should undergo an ETT if they want to participate in vigorous or competitive activities.

It is important to underscore the fact that the majority of your patients, regardless of risk factors, can and should be encouraged to start or continue a program of regular light to moderate physical activity.

CANADIAN RECOMMENDATIONS AND GUIDELINES:

The key to healthy and safe active living is to participate in a variety of activities in order to maintain interest and enjoy broader health benefits. The following recommendations are provided by Canada's Physical Activity Guide to help Canadians become more physically active.⁴⁶

1. Make physical activity an important part of your daily life.
2. Choose endurance activities 4 to 7 days a week, preferably daily. Endurance activities include:
 - walking,
 - yard and garden work
 - certain household chores
 - cycling
 - social dancing
 - continuous swimming
 - golfing (without a cart)
 - propelling a wheelchair ("wheeling")
 - skating
 - tennis.

Individuals should aim to accumulate 60 minutes of lighter activity every day (in bouts of minimum 10 minutes) **OR** 30 -60 minutes of moderate intensity activity **OR** 20-30 minutes of vigorous activities at least 4 times a week. The amount of time that is recommended to be active depends on the amount of effort involved. For older adults, guidelines recommend accumulating 30 to 60 minutes of moderate intensity activity on most, preferably all, days of the week, in sessions of at least 10 minutes.

3. Do flexibility activities like reaching, bending, and stretching 4 to 7 days a week, preferably daily. For older adults, daily is recommended. Flexibility activities include:
 - gardening
 - yard work
 - house work
 - stretching exercises
 - dance
 - golf
 - yoga

- T'ai Chi
 - bowling
 - curling.
4. Do strength activities 2 to 4 days a week. Strength activities include
- heavier yard work (e.g. cutting and piling wood)
 - raking and carrying leaves
 - carrying groceries
 - climbing stairs
 - exercises like abdominal curls and push-ups and weight-training routines.

For older adults, strength and balance activities are recommended 2 to 4 days a week, and might include simple exercises using lighter weights, (small cans of foods can be used as effective weights) walking, and carrying smaller parcels

A complete program will ideally encompass all the components of physical fitness (i.e., cardio-respiratory fitness, flexibility, muscular strength, and muscular endurance). Although a truly comprehensive program is an optimal end result, it is not realistic to expect relatively inactive patients to address all components of fitness from the outset. Often the best place to begin is to promote cardio-respiratory fitness and health benefits through moderate endurance activities, such as walking.

Match specific physical activity plans to the patient's current health status, lifestyle, long-term goals, and readiness to change physical activity behaviour. For some patients, an appropriate initial plan may be to take 10-minute walks four times a week, increasing walking time to 30 minutes per session as tolerated. Walking pace can also be increased over time.

Keep in mind that it is better for a patient to engage in a modest level of physical activity on a regular basis than to give up on an overly ambitious activity program. As patients succeed in meeting prior physical activity goals, additional components of fitness and/or more challenging goals can be incorporated into their program.

Tips for Activity:

Any activity program should include:

- a warm-up period
- an activity phase
- a cool-down period.⁴⁷

Warm-up period:

This is usually a short period (5-10 minutes) consisting of gentle stretching, light calisthenics, or an activity done at low intensity (i.e., walking or stationary bicycling at less than target heart rate). This is an important transition phase that allows the musculoskeletal and cardio-respiratory system to prepare for more vigorous physical activity.

Activity phase:

In higher intensity activities, this is the cardio-respiratory or aerobic phase of the activity.

Cool-down period:

Like the warm-up, cool-down is usually a brief period of low intensity activity such as walking or stretching. This period is important to prevent hypotension, which may occur with the sudden cessation of more vigorous exercise.

CRITERIA FOR IMPROVING CARDIORESPIRATORY FITNESS

For sedentary patients, an initial goal would be to advise them to do any kind of activity they enjoy for 10 minutes every day. Encouraging any daily physical activity is an essential first step in helping patients make regular activity a way of life.

Once this routine has been established over a period of 2-4 weeks, encourage patients to increase the amount of time to 30 minutes of physical activity every day. This can be achieved in several smaller sessions of 10 minutes each time. They can accumulate their activity time by taking the stairs, walking or bicycling to do errands, or walking to and from work.

The emphasis should be on helping patients build physical activity into their daily routine, and on promoting healthy active living through finding opportunities to be active in daily life. In order to have a more active lifestyle, the **Heart and Stroke Foundation of Canada** recommends the following steps to healthy active living:

1. Set some achievable goals.

Goals can be general or specific, as long as they are measurable and provide the direction and motivation to become more active. They can include the reasons why the patient wishes to become more active. For example, losing weight, spending more time with friends, being outdoors more often, becoming more involved in the community could all be considered achievable goals for active living.

2. Review current activities.

Have the patient think of how and when they were active the previous week. This may give them an indication of how active they are currently, and where they could improve.

3. Prepare an action plan.

Keeping in mind their current activities, have the patient think of some new activities they would like to try; for how long; and, when in the day they would like to try them. These action plans can be rigid or flexible depending on the individual's schedule. By partaking in a variety of activities every day as part of their routine, they can easily begin to accumulate the 30-60 minutes of active time required to enjoy health benefits.

For those patients who desire to do vigorous activity, more specific guidelines are needed. The following criteria apply to plans for specifically addressing cardiorespiratory fitness. Guidelines for flexibility (stretching) and muscular strength or endurance (weight training) activities are provided later. Cardiorespiratory recommendations can be easily recalled through the use of the mnemonic **FITT**, which stands for:

Frequency

Intensity

Type

Time

F=Frequency

Moderate to vigorous activity is recommended 4-7 days per week. For optimal health benefits, daily activity is recommended, especially if weight reduction is a major goal.

For previously sedentary patients, vigorous activity is not initially recommended. Light to moderate activity once or twice a week is sufficient to begin with and they can build up gradually to the recommended level over time.

Tips for Patients Regarding Frequency:

- Make activity a habit, similar to brushing teeth,
- Plan activities at a convenient time of day; choose to commute actively, or do active chores,
- Make back-up plans, in case problems like weather changes interfere with the original plan, or
- Schedule activities for a specific date and time, as for any other important appointment.

I=Intensity

Any activity that raises the heart rate offers health benefits. To have a significant effect on cardiorespiratory fitness, activity must raise the heart rate so that it is between 60 and 90 percent of age-predicted maximum. Less active individuals should start by focusing on more moderate intensity activities. Generally speaking, those who are least fit will derive greater benefit from light and moderate activities than will better conditioned patients (Please see Heart Rate Chart at the end of this section).

The appropriate intensity will depend on the individual's current fitness level, age, the presence or absence of cardiovascular disease, the presence or absence of risk factors for cardiovascular disease, and their personal preferences regarding intensity.

Tips for Patients Regarding Intensity:

- If the patient can comfortably carry on a conversation while in the midst of the activity, the intensity is considered moderate, and
- Competitive participation often suggests a more vigorous intensity level. This may not be appropriate if the patient's prior activity history has been limited, and initially a program that emphasizes light and moderate level activity is indicated.

T=Type (Mode) Of Physical Activity

Cardiorespiratory (aerobic) activity is a sustained, rhythmic activity using large muscle groups. Options for aerobic activities include brisk walking, jogging, stair-climbing, bicycling, swimming, roller-blading, aerobic dance, etc.

Tips for Patients Regarding Type of Physical Activity:

- Help patients to choose activities that are enjoyable. This will help them to maintain their activity routine,
- Suggest that patients try several different types of activity; this increases enjoyment and reduces boredom,
- Promote realistic activity plans. Activities that are too strenuous, dull, or incompatible with a patient's lifestyle or preferences will be easily abandoned. It's better that they "start small" and succeed, than make big plans that lead to failure, and
- Emphasize that active, healthy living can be achieved very simply by making more active choices in normal daily routines.

T=Time (Duration) Of Physical Activity

For aerobic fitness, Canada's Physical Activity Guide recommends that adults do at least 30 minutes of moderate activity or 20 minutes of vigorous activity, 4 to 7 days a week. Evidence suggests intermittent bouts of physical activity still produce substantial health benefits.¹⁴ It is therefore acceptable to accumulate the total recommended time through multiple 10-minute sessions, or in a single session.

Tips To Help Patients Set Activity Duration:

- Some patients may prefer 2 or 3 shorter sessions per day, rather than a single session. This still provides health benefits, and at the same time builds self-confidence and increases a patient's chance of long-term success. The choice of multiple or single sessions should be based upon the patient's preferences and convenience, and
- For weight reduction, it is useful to recommend lower intensity exercise for a longer duration, at least 30 minutes per session.

RECOMMENDATIONS REGARDING FLEXIBILITY, MUSCULAR STRENGTH, AND MUSCULAR ENDURANCE

Flexibility

- The joint's range of motion (flexibility) can be improved through stretching. Stretching can also improve daily functioning and help to prevent musculoskeletal injuries.
- Stretching activities should be performed 4 to 7 days per week, preferably daily.⁴⁶
- Stretching should be done slowly without causing significant discomfort.
- Stretches should be held 20-30 seconds, without bouncing.

Tips for Patients:

- Have patients incorporate stretching activities into their warm-up and cool-down periods, and
- Suggest brief "stretch" breaks throughout the day; for example, patients can stretch for a few minutes each hour at work, or while watching television or talking on the phone.

Muscular Strength and Endurance

Muscular strength and endurance can be maintained by 2 to 4 weekly sessions of weight bearing activities, including resistance activities, free-weights, weight machines, or calisthenics. Other resistance activities such as swimming and bicycling will also increase strength.

In a formal weight-training program, at least 8-10 exercises that work muscles throughout the body should be done at each session. One or two sets should be performed, with 8-12 repetitions per set. Dynamic, low-weight exercises are safe and effective. These should be done slowly through the whole range of motion.

Tip for Patients:

If they are planning to use weight equipment, recommend to your patients that they seek out appropriate guidance regarding proper technique (for example, from a fitness trainer at a fitness facility).

GLOSSARY OF PHYSICAL ACTIVITY TERMS

This section contains additional terms and concepts useful for delivering physical activity counseling in a confident and effective manner.

Physical Activity:

Any activity that requires sustained, rhythmic muscular movements, is at least equivalent to brisk walking, and is performed at 50 to 70 percent of maximum heart rate for age (e.g., walking, swimming, dancing, gardening, and yard work).

Vigorous Physical Activity:

Rhythmic, repetitive physical activity that uses large muscle groups at between 70 and 90 percent of maximum heart rate for age (e.g., fast walking, jogging-running, lap swimming, aerobic dancing, skating, rowing, jumping rope, cross country skiing, racquet sports, and competitive group sports such as soccer and basketball). For older adults, activities roughly equivalent to brisk walking are usually considered vigorous (see heart rate charts and comments below).

Aerobic Metabolism:

This type of metabolism requires the utilization of oxygen to provide energy. Sustained physical activity lasting longer than approximately three minutes falls under this category. This type of activity is required to promote cardiorespiratory fitness.

Maximum Heart Rate (MHR) for age:

Used as an estimation of maximum heart rate when a stress test is not performed or indicated. It may be calculated by the formula: $220 - \text{age} = \text{maximum heart rate}$. This method is used in the PACE Canada materials because it is a conservative figure and very easy for both providers and patients to use.

Target Heart Rate (THR) range:

The desired heart rate range to maintain during physical activity. THR is based on the individual's maximum heart rate for age and the desired level of intensity for exercising.

For example: You want to recommend a THR range for your 55 year old patient within the moderate intensity range: maximum heart rate for age = $220 - 55 = 165$ beats per minute (bpm)
moderate intensity = 50% to 70% of 165 bpm (MHR for age) Therefore your patient's range would be 82-115 bpm.

Taking the pulse for ten seconds and multiplying by 6 provides an estimation of exercise heart rate. The range can also be given simply for 10 seconds. In this example the 10 second range would be 17-19 beats.

If you do not wish to calculate this for each patient, the table that follows will provide target heart rate guidelines for your patients.

Target Heart Ranges

		50-70% MHR MODERATE ACTIVITY		70-90% MHR VIGOROUS ACTIVITY	
AGE RANGE	MAX HR	BPM	10 SEC	BPM	10 SEC
30	190	95-133	(16-22)	133-171	(22-29)
40	180	90-126	(15-21)	126-162	(21-27)
50	170	85-119	(14-20)	119-153	(20-26)
60	160	80-112	(13-18)	112-144	(18-24)
70	150	75-105	(12-17)	105-135	(17-22)
80	140	70-98	(11-16)	98-126	(16-21)

From the Canadian Physical Activity, Fitness and Lifestyle Appraisal Manual⁴⁹

Perceived Exertion:

This is another effective way that patients can monitor the intensity of physical activity. In the moderate zone of intensity, patients should feel like they are exerting efforts but still be able to talk comfortably. This is an especially useful guideline for patients who are taking medications that affect the heart's response to exercise (i.e., beta-blockers).