

SIS - Sport, Fitness & Recreation Training Package

SIS30315—Certificate III in Fitness

Unit

SISFFIT014

Instruct exercise to older clients

*This is not a complete document.
SAMPLE ONLY*

Student/Trainee Manual



LANE

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STUDENT/TRAINEE DETAILS

Student/Trainee Name**Student/Trainee Email****Teacher / Trainer Name****School / Institution / Training Organisation / Employer**

SAMPLE SAMPLE

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INTRODUCTION

This manual was developed to provide training content that addresses the specific 'Unit of Competency' as outlined in the following pages.

We encourage you the student / trainee to take your time when reviewing this content and seek any assistance from your teacher/trainer should you have difficulty in understanding the information.

LEARNING ACTIVITIES

Also included in this Student / Trainee manual are a series of Learning Activities.

The learning activities in the student and/or trainee manuals are 'Form Enabled' so that if the resources are delivered online, the activities can be entered in using the computer keyboard.

Each learning activity is identified with the following icon.

A blue rounded rectangular button with the text "Learning Activity" in white, bold, sans-serif font.

Learning activities come in the following forms.

- ☆ Questions
- ☆ Research
- ☆ Tasks
- ☆ Interviews

INTRODUCTION—CONT'D

Questions

Questions generally relate to the information presented on previous pages. Questions will also include multiple choice questions, 'Yes' and 'No' questions and/or 'True' and 'False' questions.

Research

This type of learning activity requires you to locate information by using research methods. The research methods could include:

- ☆ Internet searches
- ☆ Reading textbooks and other reference sources
- ☆ Location visits

Tasks

This learning activity type requires you to actually do something and some examples of tasks may include:

- ☆ Creating reports
- ☆ Visiting locations such as workplaces
- ☆ Performing an activity in a workplace

Interviews

This learning activity type would require you to interview person(s) in an actual workplace environment or a person(s) who are experienced in the industry sector which you currently are undergoing training.

You will be made aware of the type of learning activity by noting the learning activity type displayed under the learning activity icon.

INTRODUCTION—CONT'D

USING THE FORM ENABLED FEATURE

If you are using this manual online, you can fill in some of the answers using your computer keyboard.

Your teacher or trainer will provide you with the information and instructions on how to use the 'Form Enabled' feature in this manual.

SELF ASSESSMENT

At the end of each manual is a series of questions that you should review and answer either Yes or No.

The term 'Self Assessment' means you will ask yourself these questions and therefore is no need to provide the answers to the self assessment questions to your teacher or trainer, unless they require you to do so.

This self assessment is to ensure you have reviewed and understood the information that was presented in this manual.

If you answered 'No' to any of these questions or are unsure of your understanding in any of the topics reviewed, you are encouraged to go back and review the information again and/or seek the assistance of your teacher or trainer.

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UNIT OF COMPETENCY OVERVIEW

The following pages are extracts from Training.gov.au website and outlines this specific 'Unit of Competency' including the 'Elements' and the 'Performance Criteria'. The content within this manual has been developed to address this unit.

SISFFIT014 - INSTRUCT EXERCISE TO OLDER CLIENTS

ELEMENT	PERFORMANCE CRITERIA
1. Identify client fitness requirements	<ul style="list-style-type: none"> 1.1 Consider and confirm client needs, expectations and preferences using suitable questioning techniques. 1.2 Review and advise client of outcomes of pre-exercise health screening procedures. 1.3 Refer client to medical or allied health professionals as required. 1.4 Select and use appropriate baseline functional capacity or fitness assessments, as required. 1.5 Identify common barriers to exercise participation by older clients. 1.6 Recognise and explain benefits of exercise for older populations and the role of exercise in reducing risks associated with ageing. 1.7 Receive guidance from medical or allied health professionals for exercise participation, as required. 1.8 Develop and document client profile for re-evaluation purposes
2. Develop program plans	<ul style="list-style-type: none"> 2.1 Identify settings and program considerations that support safe and sustainable exercise participation for older clients. 2.2 Determine type of training, training methods and equipment required to achieve client goals. 2.3 Develop and document program plans that incorporate instructional information and guidance from medical or allied health professionals if required. 2.4 Explain benefits of exercise and anticipated structural and physiological adaptations as they relate to client goals and needs. 2.5 Develop customised training sessions that include a variety of exercises and equipment to meet client needs. 2.6 Discuss and confirm client understanding of potential signs and symptoms of intolerance contraindications to exercise and recommended precautions

SAMPLE SAMPLE

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ELEMENT	PERFORMANCE CRITERIA
3. Instruct exercise sessions	<p>3.1 Allocate sufficient space, assemble resources and check equipment for safety and maintenance requirements.</p> <p>3.2 Provide clear exercise instructions and confirm client understanding.</p> <p>3.3 Demonstrate exercises, techniques and equipment to client.</p> <p>3.4 Explain any precautions for exercise relevant to client age, ability and risk status.</p> <p>3.5 Monitor participation and performance to identify signs of exercise intolerance and modify as required.</p> <p>3.6 Monitor client intensity, techniques, posture and safety, and modify program as required.</p> <p>3.7 Seek ongoing guidance from, or refer client to, medical or allied health professionals, as appropriate.</p> <p>3.8 Select and use communication techniques that encourage and support clients.</p> <p>3.9 Modify session as required considering basic mechanics, safety and fitness outcomes.</p> <p>3.10 Respond to clients experiencing difficulties and answer questions as required.</p> <p>3.11 Complete session documentation and progress notes.</p>
4. Evaluate program	<p>4.1 Monitor and evaluate exercise program at appropriate intervals.</p> <p>4.2 Provide written and verbal feedback to medical or allied health professionals, as required.</p> <p>4.3 Request and respond to feedback from clients.</p> <p>4.4 Review own performance and identify areas needing improvement.</p> <p>4.5 Identify aspects needing further emphasis or attention in future sessions.</p> <p>4.6 Evaluate program or activities and discuss modifications to program.</p> <p>4.7 Document and update records of evaluation and modification of programs</p>

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Section One

Identify Client Fitness Requirements

SAMPLE SAMPLE

INSTRUCT EXERCISE TO OLDER CLIENTS

SECTION ONE—IDENTIFY CLIENT FITNESS REQUIREMENTS

INTRODUCTION

During the course of your career as a fitness professional, you will likely have older aged clients.

These clients would have special needs and limitations when it comes to undertaking a fitness program.

In this section we learn about those older aged clients and how to begin to identify these types of client's needs and expectations.

SECTION LEARNING OBJECTIVES

At the completion of this section you will learn information relating to:

- ☆ How to learn the client's needs, preference and fitness expectations using effective question skills
- ☆ Reviewing and advising the client of any re-exercise health screening results
- ☆ If required how to refer the client to various health professionals
- ☆ If required do some additional functional capacity testing
- ☆ Identifying potential barriers the client might encounter when deciding to participate in a fitness program
- ☆ Recognising and explaining the benefits of older people exercising
- ☆ Explaining the role of exercising and the ageing process
- ☆ Seeking and receiving guidance and advice from health professionals
- ☆ Creating a client profile document and files for ongoing program evaluation



CONSIDER AND CONFIRM CLIENT NEEDS, EXPECTATIONS AND PREFERENCES USING SUITABLE QUESTIONING TECHNIQUES

Before you can start a fitness program with a new client, you need to find out as much information about them as you can. To be able to do this successfully you need to put the customer at ease. Most older aged clients will have some apprehension about making changes to their physical activity and you will need to put them at ease as soon as you meet them. You only have a matter of seconds to make a good first impression, so the greeting is a critical component of how your relationship with the client will go.

When an older aged client first comes to a fitness centre they have a purpose in mind. The most common will be to build up their general fitness. In most cases they have a long term goal of where they would like to be, but no real solid idea of how to get there. It is up to you as a fitness professional to give the client a plan to allow them to reach their goals.

QUESTIONING SKILLS

To do this you need to identify their requirements and then match them with your knowledge of the organisations products and services.

This means you would need to ask questions and listen carefully to the answers. It must always remain a two-way conversation. Some older aged clients may not be good at articulating themselves so patience is needed.

It is also important that you confirm the details with the client by repeating them back to the client and asking the client to clarify details which are not completely understood. In this way then you can be assured that you are assisting them in the most appropriate way. Basically, these simple steps should be followed:

- 1) Ask the client how you may assist them
- 2) Listen carefully to what they say
- 3) Ask questions to further clarify their requirements
- 4) Again, listen carefully to their answers
- 5) Clearly repeat the details back to the client
- 6) Ask questions on details you still do not understand or may have missed
- 7) Listen carefully to their answers
- 8) Again, repeat the details back to the client



A good communicator listens as much as they speak. It is important to keep following those steps until both you and the client feel that each have a full understanding of their fitness goals, expectations and preferences.

The above steps are especially important when a client is unsure of his or her fitness goals, expectations and preferences. They may not know exactly what they want.

In this situation, questions and resulting answers may start off in very general terms. However, as the questioning continues, the fitness goals, expectations and preferences of the client become more defined and you are then more likely able to satisfy those fitness goals, expectations and preferences.

Sometimes in these situations you may feel frustrated. It is important, however, to always maintain a friendly facial expression, use a calm, courteous tone of voice and give the client their undivided attention. This will keep the client relaxed and in turn make them easier to serve.

**Learning
Activity**

Question

LEARNING ACTIVITY ONE

Fran is 62 and has just moved into the area. You have been introduced to Fran to take on the role of her fitness instructor.

Fran is originally from Ireland and has a very strong Irish accent and tends to speak quickly.

You find Fran a little hard to understand. So at the initial meeting what questions would you ask Fran and because you find her a little difficult to understand her, what would you then need to do.

SAMPLE SAMPLE



REVIEW AND ADVISE CLIENTS OF OUTCOMES OF PRE-EXERCISE HEALTH SCREENING PROCEDURES

Pre-exercise health screening questionnaires are used to evaluate the health and general fitness of a client. By using these questionnaires you will get a comprehensive history of your client. Things that the health screening questionnaire looks at are potential barriers to participation as well as general information on the client's health and goals. The questionnaire will help you to find out if the client has any pre-existing factors that would limit their participation in an exercise program. The information collected will either let you continue with the client or refer them to a health professional.

As you gain more experience in the industry you will become exposed to a wide variety of pre-exercise health screening questionnaire styles and from these you can form your own preferred questionnaire. Most pre-exercise screening questionnaires will cover the following:

- ☆ Background information on the client
- ☆ Known diseases or illness
- ☆ Family history of disease or illness
- ☆ Signs and symptoms of disease or illness
- ☆ Intentions of undertaking the fitness program

As with everything else, make sure you have open communication with your client about the reasons behind the pre-exercise health-screening process.

It is important to make it clear to the client that they must answer the questionnaires honestly.

Once the client has completed the questionnaire it is time to review the information.

It is at this point after reviewing the pre-exercise health screening information, you would discuss the results of the pre-exercise health screening information.

This discussion should be open and frank and the information from pre-exercise health screening questionnaires used to discuss how the fitness goals and preferences will be achieved.



TAKING GENERAL BODY MEASUREMENTS

As part of the pre-exercise health screening, you will need to take some basic body measurements of the client.

The common measurements are:

- ☆ Waist Circumference
- ☆ Waist to Hip Ratio
- ☆ Body Mass Index

A client's waist size is a clue to whether they are at risk for type 2 diabetes, high blood pressure, high cholesterol and heart disease. To measure the **waist circumference**, use a tape measure. Start at the top of the hip bone, then bring the tape measure all the way around, level with their belly button. Make sure it's not too tight and that it's straight.

Write down the measurement accurately.

Next you will want to measure the circumference of the clients hips. This measurement is taken using a tape measure around the widest part of the clients buttocks.

Write down accurately the measurement.

To determine the **waist to hip** ratio, you divide the waist measurement by the hip measurement.

For example, if the clients waist is 101 centimetres and their hips are 120 centimetres their waist to hip ratio is 0.85.

Next is determining the client's body mass index.

There are numerous **body mass index** (BMI) calculators on the internet and all are based on the basic formula $\text{weight(kg)}/\text{height}^2(\text{m}^2) = \text{BMI}$.

For example, if a client is 95 kilos and is 182 centimetres tall there BMI is 29.3.

**Learning
Activity**

Question

LEARNING ACTIVITY TWO

In this Section as part of the pre-exercise health screening process there is usually the need to take general body measurements.

What were those general body measurements and how was each one taken?

SAMPLE SAMPLE



REFER CLIENT TO MEDICAL OR ALLIED HEALTH PROFESSIONALS AS REQUIRED

Through the health screening questionnaire you will find some older aged clients that have risk factors that might make a standard exercise program inadvisable. In these cases it is important to get a professional opinion. Your organisation may have a list of contacts that you can use to get advice on what you should be offering. Another approach is by referring the client to their own local health care professional.

A simple and brief letter can be written, remember doctors are generally very busy so be concise and state only the facts that are relevant. As a guide the letter should contain the following:

- ☆ What the client is hoping to achieve
- ☆ What medical risk factors you have been notified of
- ☆ What fitness plan you are hoping to follow
- ☆ Request for feedback

The letter can then be sent to the health care professional or handed to your client to give to them directly. It should include a copy of the pre-exercise health screening questionnaire.

It is very important to remember that as a fitness professional, you are there to support your client's goals for a fitter body and lifestyle, but not at the risk of injury or developing of health problems.

As a general rule clients with one or more of the following conditions should not undertake exercise until they have undergone medical review.

They include:

- ☆ Any chronic heart problems
- ☆ Unacceptable high blood pressure
- ☆ Low blood pressure after reasonable physical activity
- ☆ Muscular disorders exacerbated by exercise
- ☆ Electrolyte abnormalities/imbalance
- ☆ Infectious disease

...to name just a few

**Personal Training
Medical Release / Referral Form**

Name:	Command Location:
Diagnosis:	OC/SC/OC/SC:
Medication:	Command Phone #:
Duty Status:	
Time Frame of Duty Status:	

Recommendations for Personal Trainer:

Resistance Training:

☐ Full Go - No Limitations
☐ Fitness Conditioning Only - No use of loaded assets
☐ Open Chain Exercises Only
 (Please provide specific exercises in the special instructions area of this document.)
☐ Closed Chain Exercises - Weight bearing for **Staircase**
 (Please provide specific exercises in the special instructions area of this document.)

Cardiovascular Exercise:

☐ Full Go - No Limitations
☐ Fitness Conditioning Only - No use of signed assets
☐ Low Impact Cardio Only
☐ Special Instructions:
☐ Recumbent Bike
☐ Treadmill
☐ Elliptical
☐ Stair
☐ Arch Trainer
☐ Stepper
☐ Rowing
☐ Other _____

May Perform Exercises in the following Phases of Movement:

☐ All Planes
☐ Sagittal
☐ Frontal
☐ Transverse
☐ Increase Muscular Strength
☐ Increase Muscular Endurance
☐ Improve Body Composition

Flexibility Training:

☐ Dynamic Flexibility - No Limitations
☐ Static Flexibility Training

Special Instructions:

Statement of Permission: By signing this document I, the medical provider, hereby grant the Personal Trainer permission to carryout personal training services per the restrictions provided above.

Physician or Medical Provider's full name and Rank _____

Physician or Medical Provider's Phone Number _____ Medical Provider's Location _____

Physician or Medical Provider's Email address _____ Date: _____

Medical Provider's Stamp:

When referring clients to a medical or allied health professional, you must use the appropriate referral form. It should bear the name, phone, address, of your client, contraindications observed and follow-up appointment dates.

A good referral letter should contain the following information:

- ☆ Client's name
- ☆ Weight
- ☆ BMI
- ☆ Resting heart rate
- ☆ Blood Pressure
- ☆ Waist Circumference
- ☆ Reason for the letter
- ☆ Planned exercise program

It should be noted that sometimes a medical referral letter is also called a 'Medical Release' form.

There are many templates available online, one in particular is available from Fitness Australia on their website. (www.fitness.org.au).

In the search field type in "Exercise Referral Kit" to access their templates.

On the following page is a sample of their referral letter.

SAMPLE SAMPLE

Medical Referral Letter Template

Accessed from Fitness Australia website

SAMPLE SAMPLE

LETTERHEAD - INCLUDE YOUR BUSINESS NAME/CONTACTS/LOGO HERE

Practitioner Name
Clinic
Address
Suburb State Postcode

Referral Date:

Dear Practitioner Name,

Re: Client Name: Insert Client Name
Client Address: Insert Client Address
Client DOB: Insert Client DOB

My/our client Insert Client Name has presented to our business/service/facility with the goal of XYZ.
Client's Name's information and measurements recorded during pre-exercise screening include the following:

Current Physical Activity level	Sessions / week	Notes:
	Minutes / week	
	Intensity (low/mod/high/ vig)	
Resting HR		<ul style="list-style-type: none"> Include bullet point details of any signs or symptoms of cardiovascular, metabolic or respiratory disease, or other medical issues identified in APSS results. Attach copy of completed APSS tool Include any details of other practitioners treating the client
Resting BP		
Weight		
BMI		
Waist Circ		

In response to his/her screening results I am requesting your guidance in relation to Client's Name's condition to enable me/us to ensure delivery of a safe and effective exercise program.

Based on Client's Name's goals, I/we intend to have him/her commence an exercise program consisting of the following:

Describe the intended program focus in brief (1-2 sentences) – e.g. strength / cardio based program; group vs 1:1

Please assess Client's Name's condition and indicate any recommendations you may have in relation to his/her exercise program, including specific activities he/she cannot or should not be undertaking at this time, or other relevant notes.

I/we will keep you informed of Client's Name's progress and any major changes in his/her condition. To acknowledge you have received this referral, please complete this section:

Date Referral received:		Status of Referral: <small>*please describe action required in notes</small>	Complete	Incomplete*
Practitioner Name:		Contact person for follow up: <small>**please provide new contact details in notes</small>	As above	New contact**
Practitioner Title:		Notes:		
Practitioner Signature:				

Please include in notes any instructions you may have regarding follow up or progress reporting.

**Learning
Activity**

Question

LEARNING ACTIVITY THREE

When sending a referral letter to a health professional, what information should the referral letter contain?

SAMPLE SAMPLE

**Learning
Activity**

Question

LEARNING ACTIVITY FOUR

William is a fitness professional at 'Fitness 4 life Inc'. Due to his proficiency and success stories, he is quite popular; and gets new clients weekly. This week, one of his new clients was elderly and used a walking stick as support. What would be his manner of approach?

SAMPLE SAMPLE



SELECT AND USE APPROPRIATE BASELINE FUNCTIONAL CAPACITY OR FITNESS ASSESSMENTS, AS REQUIRED

Many fitness professionals will augment the pre-exercise health screening questionnaire with some simple functional capacity or fitness assessment exercises.

A common assessment exercise method is called the submaximal graded exercise tests.

Submaximal graded exercise is any physical activity whose intensity increases at regular intervals up to but never exceeding 70-80 percent of the client's maximum heart rate or as directed by the client's doctor. Among the types of graded exercise tests normally used to find the client's 'aerobic' capacity are a stationary bike and a treadmill test.

The starting point of the submaximal exercise tests is the client's weight, height, blood pressure and heart rate are recorded and their maximum heart rate is calculated.

The common method of calculating a client's maximum heart rate is taking 220 and minus their age. So if a client is a male and 55, their maximum heart rate is 165. ($220 - 55 = 165$).

For females may will divide the woman's age by .88 and take this number off 206. So if the client is a female and 55, their maximum heart rate would be 144 ($206 - (55/.88) = 144$).

This is only a guide and most fitness professionals based of the pre-exercise questionnaire may request the client get their doctor to provide them their maximum heart rate.

A submaximal exercise tests indicate oxygen consumption, a measure of aerobic fitness, by recording your heart rate response during a submaximal bout of exercise. During a submaximal graded exercise test, the client's heart rate will increase as the exercise intensity increases. The intensity level of the exercise the client does before reaching 80-85 percent of your maximum heart rate is an indirect indication of the client's aerobic fitness.



ADVANTAGES OF SUBMAXIMAL GRADED EXERCISE TESTS

Submaximal graded exercise tests can be administered to clients of various fitness levels including older aged clients, making the tests time-efficient and cost-effective. A single exercise testing session can provide a reasonably accurate indication of the client's current aerobic fitness level and is very useful for tracking the client's fitness improvements across a fitness program.

This is important because you can show the client that regular exercise can decrease their heart-rate levels even during a higher exercise intensity. This cardiovascular improvement is a sign that their fitness level has improved. Clinicians may use submaximal graded exercise tests as a simple and cost effective tool to diagnose disease states, such as cardiovascular disease, and prescribe exercise programs to patients.

METHODS

Preferred methods of exercise testing use the stationary bike and the treadmill. During a typical submaximal fitness test, the weight, height, blood pressure and heart rate are recorded and your maximum heart rate is calculated. The client exercises at low intensity until they reach a steady heart rate, then the intensity is increased. Treadmill tests increase elevation and bike tests increase resistance. Speed remains constant for the duration of the test. Heart rate is continually recorded, as intensity is increased periodically. The submaximal graded fitness test stops when the client's heart rate reaches 80-85 percent of their maximum heart rate or what the doctor has prescribed or when the client feels they cannot continue.

PROFESSIONAL MONITORING

For the most accurate results, a fitness test should be monitored and the results analysed, by a professional and experienced trainer, an exercise physiologist, a nurse or a doctor. Maximum heart rate can differ greatly from person to person. Miscalculation of a client's maximum heart rate could lead to an overestimation of their fitness level and put them at risk of injury or harmful health consequences, as could any incorrectly conducted submaximal graded exercise test.

**Learning
Activity**

Task

LEARNING ACTIVITY FIVE

Describe in your own words what a submaximal exercise assessment is.

SAMPLE SAMPLE



IDENTIFY COMMON BARRIERS TO EXERCISE PARTICIPATION BY OLDER CLIENTS

All clients have a choice whether they want to exercise even on a daily basis.

Like all other habits the longer a person does something, the more likely they will stick with it and this is true with exercise. Any client that sticks with their fitness program for six months or longer is more likely to stick with it for the long term; making it a lifestyle decision.

However, the key here is to ensure that they keep going for six months or longer; that risk period is when they could often decide to not keep going.

When a client has started their fitness program, their fitness instructor or trainer would need to put into place some 'exercise adherence strategies'.

In other words, strategies that the fitness instructor or trainer will use to ensure his or her client sticks with their training program.

The client plays a significant role in developing these strategies.

SAMPLE SAMPLE



Making a decision to stop going to the gym is often triggered by something else.

As their instructor or trainer you would encourage clients to identify situations when they are likely to experience lapses in their exercise program. The most common situations include:

- ☆ Work commitments
- ☆ Travel
- ☆ Holidays
- ☆ Illness
- ☆ Stress
- ☆ Mood
- ☆ Poor weather
- ☆ Family commitments

When clients anticipate these situations and are helped to develop strategies to deal with them, they are better prepared in the actual situations and tend to have higher confidence in coping with them. Illness and family commitments are especially relevant for older adults. It can be difficult for anyone to get back to an exercise program after recovering from an illness; even more so for older adults, who tend to remain ill longer and physically are unable to very much during this period.

There are many thoughts go through a person's mind when deciding whether or not to exercise, such as "I'm too tired" and "I'm not in the mood" and these often used as excuses to support the decision to not exercise.

After missing an exercise session or two, a person often feels as though he or she has failed. This person might decide to wait until the following week or the following month or even the following year to resume their program but often never do.

Also, it is common for clients to feel discouraged when fitness goals are not met and outcomes are not reached. These thoughts can lead to a brief lapse in an exercise program or to quitting the program altogether.



Another common issue is self-esteem. These clients tend to place less value on the benefits of physical activity compared with those who adhere to exercise.

So it is up to the fitness professional to teach their clients to replace their negative thoughts with more realistic or positive ones. The first step is for the client to be aware of his or her thoughts and how thoughts lead to certain behaviours.

The clients need to challenge negative thoughts. A common technique is to ask what the client would say to a friend with the same thought and encourage the client to focus on those thoughts.

Another problem with most persons is that they think having a fitness program is an “All or Nothing” commitment. The fitness professional needs to assure them that there will be times that sessions will be missed for valid reasons, however those reasons should not be the basis of believing their fitness goals have failed.

The all-or-nothing trap is powerful and clients should be reminded to view exercise and adherence as an ever evolving lifestyle commitment. It is important that the client never forgets that doing some level of physical activity is better than no physical activity at all.

For example, when a client says, "Because of that stupid cold I could only exercise twice this week—I really blew it," the fitness trainer or instructor can respond by saying, "I think it's great that you were still able to get in those two sessions, despite your cold!"

Keep reminding clients of their goals and continuous positive reinforcement goes a long way of keeping the clients on track.

This leads to the importance of developing a training program that in the initial stages has the client making progress. Any progress, even if it is small will keep the client motivated and stick with the program. Unrealistic goals at the start will only lead to disappointment and the client stopping their training.



Another strategy is mixing the exercise activities up every few sessions or so. This takes away the potential of becoming bored with the exercise which leads to training lapses.

For older clients, high intensity exercises will generally put them off. Many trainers or instructors will ask what the client what exercises the client likes to do and this has the client contributing to their own fitness program.

Also research has shown that new clients are likely to stick with an infrequent training program schedule such as 1 -2 times a week because subconsciously they believe the training program is not taking over their life and all their spare time.

This concept is also true with the older clients. They look at going to the gym as an event not as a chore, like meeting a friend for a coffee every Tuesday. They start to look forward to the exercise session.

Introducing a client to another client and creating an exercise buddy relationship is another strategy. Subconsciously each one does not want to let the other down so it tends to pull them back to a regular exercise routine.

SAMPLE SAMPLE

OLDER AGED CLIENTS

There is a website called Helpguide.org where three health professionals listed 5 myths about older aged persons doing exercise that are often used as barriers to exercise participation. We have listed those below:

Myth 1: There's no point to exercising. I'm going to get old anyway.

Fact: Exercise and strength training helps you look and feel younger and stay active longer. Regular physical activity lowers your risk for a variety of conditions, including Alzheimer's and dementia, heart disease, diabetes, certain cancers, high blood pressure, and obesity. Not only can exercise help stem the decline in strength and vitality that comes with age, it even improves it. And the mood benefits of exercise can be just as great at 70 or 80 as they were at 20 or 30.

Myth 2: Older people shouldn't exercise. They should save their strength and rest.

Fact: Research shows that a sedentary lifestyle is unhealthy for adults over 50. Inactivity often causes older adults to lose the ability to do things on their own and can lead to more hospitalisations, doctor visits, and use of medicines for illnesses.

Myth 3: Exercise puts me at risk of falling down.

Fact: Regular exercise, by building strength and stamina, prevents loss of bone mass and improves balance, actually *reducing* your risk of falling.

Myth 4: It's too late. I'm already too old to start exercising.

Fact: You're never too old to start exercising and improve your health! In fact, adults who take up exercise later in life often show greater physical and mental improvements than their younger counterparts. If you've never exercised before, or it's been a while, you won't be encumbered by the same sports injuries that many regular exercisers experience in later life. In other words, there aren't as many miles on your clock so you'll quickly start reaping the rewards. Just begin with gentle activities and build up from there.

Myth 5: I'm disabled. I can't exercise sitting down.

Fact: Chair-bound people face special challenges but can lift light weights, stretch, and do chair aerobics, chair yoga, and chair Tai Chi to increase range of motion, improve muscle tone and flexibility, and promote cardiovascular health. Many swimming pools offer access to wheelchair users and there are adaptive exercise programs for wheelchair sports, such as basketball.

(Reference extract from <http://www.helpguide.org/articles/exercise-fitness/exercise-and-fitness-as-you-age.htm>)

**Learning
Activity**

Question

LEARNING ACTIVITY SIX

In this Section we learned about ‘Adherence Strategies’ and that often older aged clients start to lapse in their training due to various triggers in their daily lives. What were those eight triggers?

SAMPLE SAMPLE

**Learning
Activity**

Question

LEARNING ACTIVITY SEVEN

In this Section we learned about five myths that older aged fitness clients may think or use as a barrier to exercise participation.

What were those five myths?

SAMPLE SAMPLE



RECOGNISE AND EXPLAIN BENEFITS OF EXERCISE FOR OLDER POPULATIONS AND THE ROLE OF EXERCISE IN REDUCING RISKS ASSOCIATED WITH AGEING

There is a term that often is used today that relates to the aging population and that is the 'Concept of Healthy Ageing'.

This concept means healthy ageing takes advantage of opportunities for physical, social and mental health to enable older people to take an active part in society without discrimination and to enjoy an independent and good quality of life. It means taking a holistic approach, taking into consideration the many different aspects of life which play a role.

These aspects include:

- ☆ Physical exercise
- ☆ Diet and nutrition
- ☆ Being socially active
- ☆ Life long learning
- ☆ Employment and volunteering
- ☆ Access to services
- ☆ Embracing technology
- ☆ Assured of long term care
- ☆ Environmental awareness

Of course you as the trainee or student are more interested in the physical activity aspect. Older age clients will often need to be encouraged to stay with a fitness program by explaining to them the numerous benefits of exercising.



BENEFITS OF EXERCISE FOR OLDER AGED CLIENTS

The broad benefits of exercises for older people and its association with improved longevity and quality of life are well documented. Older persons who are physically active are generally healthier than those who are inactive; they have lower levels of diseases such as diabetes, heart disease and some cancers, better general health and vitality, a lower risk of falling as well as better mental health.

Regular exercise builds muscle mass giving the client far greater strength and stamina and is key to bone and joint health and maintenance, including reducing joint pain and swelling associated with arthritis.

Regular exercise provides older clients far more mobility to function in everyday activities and exercise increases strength and balance that greatly reduces the risks of falls.

As a fitness professional it is important that the benefits of exercising is clearly communicated to the older clients and you will find that the older aged clients will often need to be reminded of those benefits.

**Learning
Activity**

Question

LEARNING ACTIVITY EIGHT

In this Section we learn the nine aspects to the concept of ‘Healthy Ageing’. What were those nine aspects?

SAMPLE SAMPLE



RECEIVE GUIDANCE FROM MEDICAL OR ALLIED HEALTH PROFESSIONALS FOR EXERCISE PARTICIPATION, AS REQUIRED

Medical and allied health professionals often play a crucial role in the promoting of physical activity to their older aged clients.

However, the responsibility of making a decision whether the health condition of their patient is at a level suitable for a particular exercise activity or any at all, is that of the health professional, which is often the doctor.

So it is important in most cases that the older aged client gets an exercise referral or clearance from their doctor.

Other health professionals may need to be referred to for guidance as to the type and intensity of the exercise activities the older client may undertake.

The fitness professional may need to seek advice, referrals and guidance from one or more of the following medical or health professionals:

- ☆ accredited exercise physiologist
- ☆ accredited practising dietician
- ☆ chiropractor
- ☆ continence nurse advisor
- ☆ general practitioner
- ☆ occupational therapist
- ☆ osteopath
- ☆ physiotherapist
- ☆ podiatrist
- ☆ psychologist
- ☆ remedial massage therapist

This guidance and advice sought will ensure you as the fitness professional that you are developing a fitness program that will be of the most benefit to the older client and not be one that puts the client at any risk.



REFERRAL TO HIGHLY QUALIFIED FITNESS PROFESSIONAL

Referral letters are not only restricted to medical professionals.

There could be instances where the client has requested a personal trainer or the type of training program that the client needs or is seeking is beyond your current capabilities, skills or expertise.

In these cases a referral letter would need to be prepared and provided to a professional trained personal trainer and specialised or highly qualified fitness professional.

Generally, the information is the same as that contained in a medical referral letter.

It would include though any medical referral letters, allied health professional advice or guidance.

SAMPLE SAMPLE

**Learning
Activity**

Research

LEARNING ACTIVITY NINE

This Section was about various types of health professionals that as a fitness professional, you may need to interact with on behalf of your older clients. Below is a list of some of them. In this activity we want you to do some research and under each tell us what their professional discipline is.

Accredited exercise physiologist***Chiropractor******Occupational therapist***

SAMPLE SAMPLE

Osteopath***Physiotherapist******Podiatrist***

SAMPLE SAMPLE



DEVELOP AND DOCUMENT CLIENT PROFILES FOR RE-EVALUATION PURPOSES

As a fitness professional you will be generating a reasonable amount of information about your clients.

This information would include:

- ☆ Notes taken when determining client's fitness needs and preferences
- ☆ Pre-exercise health screening questionnaires
- ☆ Referral letters from health professionals
- ☆ Documenting fitness programs
- ☆ Ongoing evaluation documents
- ☆ Notes on ongoing advice given to the client

One type of document you would develop is a “client profile”.

This client profile would start with the pre-exercise health assessment information and the initial fitness program developed for the client based on the needs, preferences and the pre-exercise health assessment information.

There are various ways of developing client profile documents or files and most are dictated by the facility you would be, or are now working in.

The client profile needs to be kept up to date and used often to evaluate the clients progress in the fitness program and re-evaluate the fitness program they have been given.

Any handwritten profiles need to be clear, understandable and legible. Other members of the organisation may need to work with the client and will rely on the information you have kept.

Clients of any fitness facility are protected by Australian Privacy laws. Much of the information held is of a sensitive nature, confidential and needs to be treated as such.

All documents relating to the client need to be kept safe and secure. If the information is paper based then they should be locked away in lockable filing cabinets. If any information is stored on a computer, then this information should be accessed only with a authorised username and password.

**Learning
Activity**

Question

LEARNING ACTIVITY TEN

Here is a scenario.

You have just created a new client profile file for an older aged client. This has included the information gathered from the client's pre-exercise health screening questionnaire. You have instructed the client to go to their doctor and get some guidance, advice and clearances in doing a fitness program.

A few days later the client has come back with a letter from their doctor and it has contained additional information that does have an affect on how you develop a fitness program for the older aged client.

What is your next immediate step?

SAMPLE SAMPLE

Section Two

Develop Program Plans

SAMPLE SAMPLE

INSTRUCT EXERCISE TO OLDER CLIENTS

SECTION TWO—DEVELOP PROGRAM PLANS

INTRODUCTION

Your role as the client's fitness instructor or trainer is to develop the most appropriate fitness program, taking into account their various needs, goals and limitations.

In this section we learn the various steps and tasks that are involved in developing fitness program plans.

SECTION LEARNING OBJECTIVES

At the completion of this section you will learn information relating to:

- ☆ Identifying a safe setting and taking into account certain considerations for the older clientele fitness programs
- ☆ Determining the type of training, the training methods and equipment that would make up the fitness program
- ☆ Incorporating any guidance and/or advice into the fitness program plan from health professionals
- ☆ Developing the program plan that includes key instructional details
- ☆ Explaining the benefits of the fitness program including what body adaptations the client could expect
- ☆ Developing customise training sessions in line with the clients needs and limitations
- ☆ Ensuring the client understands exercise intolerance and any contraindications to exercise they need to be aware of



IDENTIFY SETTINGS AND PROGRAM CONSIDERATIONS THAT SUPPORT SAFE AND SUSTAINABLE EXERCISE PARTICIPATION FOR OLDER CLIENTS

Most fitness facilities today cater for the older aged clients. This includes well lit exercise areas , climate controlled and swimming pools with sectioned off areas.

However, often a new older client will want to undertake a fitness program and aside from any identifiable medical issues, the older client's physical preparedness to exercise is low, which is often the case.

The fitness trainer needs to take this into consideration and develop a training program the slowly builds up the older aged client's condition and skills, otherwise the client risks sustaining an injury.

A fitness program that starts off with a higher level of intensity and regularity could result in unsafe overtraining and this too could lead to injury and also could have the client decide to stop training altogether.

Another consideration when instructing the older aged client is incontinence. High intensity aerobic type exercises may need to be avoided. Also there are simple exercises (one being the Kegel exercises) that can be included in the training program to help reduce the accidents caused by incontinence. These exercises are ideal to recommend as incidental exercise that can be done at home.



FALL INJURY PREVENTION

Falls are a major threat to the health and independence of older adults, especially people aged 65 and older. Falls can be devastating.

Unfortunately some falls among older adults result in a serious injury, such as a hip fracture or head injury, which requires hospitalisation. In addition to the physical and emotional pain, many people need to spend significant amount of time recovering, sometimes in a long-term care facility. Some never return to their homes.

The good news is that in fitness facilities falls are preventable. Falls can happen to anyone of any age; however the older client does have a greater risk due to the aging process. Factors include:

- ☆ Poor eye sight
- ☆ Arthritis
- ☆ Loss of some sensation in the limbs, such as the feet
- ☆ Muscle weakness
- ☆ Balance problems
- ☆ Medications

In a fitness facility, the areas where the older client at risk of fall injuries would need to be instructed would be in an area where falling hazards did not exist. Falling hazards could include:

- ☆ Fitness machines
- ☆ Fitness accessories such as step boxes, free weights, balls and other small items on the floor
- ☆ Small mats
- ☆ Towels on the floor
- ☆ Damp floor (including change or locker rooms)
- ☆ Low lighting
- ☆ Cables
- ☆ Stairs to and from the exercising area
- ☆ No handrails on stairways
- ☆ Uneven floor or outdoor surfaces
- ☆ Insufficient area causing to run into or bump into others

The fitness instructor or trainer would need to identify any potential falling hazards and take action in either removing the hazard or not exposing the client to the hazard.

**Learning
Activity**

Question

LEARNING ACTIVITY ONE

In this Section we looked a some factors that contribute to falls, especially with the older aged clients.

What were those six factors?

SAMPLE

SAMPLE SAMPLE

**Learning
Activity**

Question

LEARNING ACTIVITY TWO

In this Section we looked at some hazards in a fitness facility that could contribute to falls, especially with the older aged clients.

What were those eleven hazards?

SAMPLE SAMPLE



DETERMINE TYPE OF TRAINING, TRAINING METHODS AND EQUIPMENT REQUIRED TO ACHIEVE CLIENT GOALS

As a fitness professional you will have the responsibility to develop fitness programs for clients that meets their goals, preferences and expectations.

Of course this would also need to be in line with the client's health assessment using the pre-exercise health screening questionnaires.

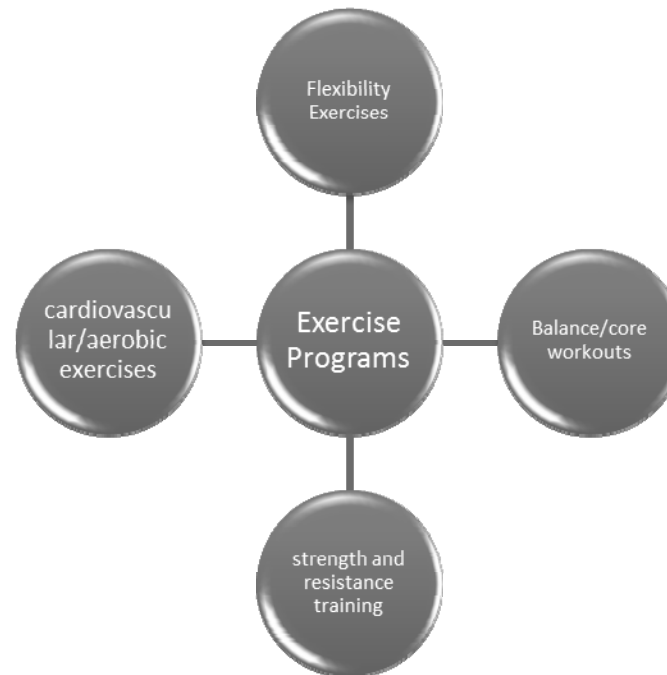
There are no two types of training programs that are the same; just as you will know that there are no two clients that have the same goals, preferences and expectations.

So it is important to outline a fitness program plan that is designed specifically for your clients.

This is especially true when you are developing fitness plans that are for older aged clients.

SAMPLE SAMPLE

There are lots of exercise programs currently available in the fitness industry for older aged clients that a fitness professional can consider.



Basically, four groups/types of exercise programs exist: flexibility exercises which improve joint and total body flexibility; balance/core-workouts which improve balance and coordination; strength and resistance training which strengthen the bones and muscles; and cardiovascular/aerobic exercises which improve physical endurance and stamina.

However, older aged clients must receive exercise prescriptions tailored to meet their specific needs and limitations.

Over the next few pages we have outlined some health conditions that an older aged client may have, as well as what are considered suitable exercises and what would be considered not suitable.

ASTHMATIC CLIENTS

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercise/fitness activities</i>
Walking/sprints	Any activity outdoors in cold and damp weather
Yoga	
Baseball/softball/volleyball	
Biking	
Golfing	
Tennis and other racquet sports	
Swimming	
Martial arts	
Weight training	
Aerobics	

ANGINA

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercises/fitness activities</i>
Treadmills	Long distance running
Biking	Cold-weather activities
Walking	
Swimming	

HYPERTENSION/HEART DISEASE

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercises/fitness activities</i>
Aerobics (walking, jogging, cycling, swimming)	Heavy weight lifting
Resistance exercises	Heavy physical exercises
Cardiovascular exercises	

DIABETES

Brief workouts	High-impact activities
Weight lifting/resistance training	Vigorous-intensity exercises
Aerobic exercises (walking, swimming, cycling, running etc)	
Tai Chi	
Water aerobics	
'Interval training'	
Balance exercises	

ARTHRITIS

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercises/fitness activities</i>
Strengthening exercises(free weights etc)	Resistance exercises
Endurance exercises (swimming, biking etc)	High impact exercises

OSTEOPOROSIS

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercises/fitness activities</i>
Weight-bearing exercises (e.g. walking etc)	Dynamic exercises (e.g. jumping, dynamic weight-bearing etc)
Muscle-strengthening exercises (e.g. weight-lifting etc)	High intensity cardiovascular activities (e.g. running, walking on uneven surfaces etc)
Non-impact activities (balance, posture and functional exercises)	Trunk flexion/seated stretches
Low-impact-weight bearing exercises (e.g. low-impact aerobics etc)	Floor crunches
Hip and spine strengthening exercises (e.g. hip abductor strengthening, prone leg lifts etc)	Back extensions (e.g. prone lying leg raises, superman holds, seated back extensions etc)
	Twisting (e.g. seated trunk rotations, bicycle crunches

ELDERLY CLIENTS IN GENERAL

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercises/fitness activities</i>
Moderate-intensity/vigorous-intensity aerobics	
Balancing exercises (sideways walking, simple grapevine, heel to toe walk, one leg stand, step up)	
Seated exercises (chest stretch, upper body twists, hip matching, ankle stretch, arm raises, neck rotation, neck stretch)	
Flexibility exercises (sideways bend, calf stretch)	
Strengthening exercises (sit to stand, mini squats, calf raises, sideways leg lift, leg extension, wall press up, biceps curls)	

OBESE CLIENTS

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercises/fitness activities</i>
Cardiovascular exercises	
Exercise ball work-outs	
Strength-training exercises	
Portable pedlar	
Aqua aerobics	
Aerobics	
Resistance-training (machines, free weights, elastic bands, calisthenics)	
Cross-training	
Non-weight bearing exercises (stationary climbing, recumbent cycling, seated stepping, upper body muscles building, seated aerobics, water activities)	

INJURED/DISABLED CLIENTS

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercises/fitness activities</i>
Cardiovascular exercises	High-impact activities
Strength-training exercises	Vigorous intensity exercises
Flexibility exercises	
Boxing	
Aqua aerobics	
Aerobic resistance training	
Resistance training exercises	

LOWER BACK PAIN

<i>Suitable exercises/fitness activities</i>	<i>Unsuitable exercises/fitness activities</i>
Aerobics (walking, cycling, swimming)	High-impact exercises (e.g. running)
Light muscle strengthening exercises	
Yoga/tai chi	
Low- to moderate-intensity cardiovascular exercises	

It cannot be over-emphasised that recommendation of suitable exercises should be done with the consultation of a licensed exercise therapist and doctor.



TRAINING METHODS

As a fitness professional you would need to determine the training method that should be used in the training program plan.

The training method would need to match the needs of the older aged client as well as take into account any specific considerations.

There are many training methods that could be considered and some could include:

- ☆ Personal trainer
- ☆ Self managed training
- ☆ Home training programs
- ☆ Participating in a local sporting club/team
- ☆ Use of a training facility such as a gym, swimming pool, sports facilities and so on.
- ☆ Integration of training with other activities such as work, commuting, at school and so on.



Generally, most fitness instructors would be working within a fitness facility such as a gym and the training methods would focus on the skills of trainers within that facility both as personal trainers and as instructors who simply monitor clients who are self managing their training program.

However, the trainer could still suggest other physical activities that would complement the training program that they developed for the client.



SAMPLE SAMPLE



INCIDENTAL EXERCISE

For the older clientele, incidental exercise is as important as is a formal exercise program.

In fact, many fitness professionals will build 'homework' into the fitness program for the client.

The fitness instructor or trainer could suggest to the client that they walk instead of drive to their local corner store. Walk around a park or the shopping mall for 20-30 minutes a day. Gardening is another good type of incidental exercise. Walking the dog is another.

The advice of the client's doctor may be needed before suggesting any incidental exercises. Also safety is a major consideration. It may be more appropriate that the client walks with a friend or a family member instead of their own.

Swimming, Tai Chi in the park, yoga classes or Pilate classes, if not part of the exercise program, could be suggested as other forms of exercise that could be considered to supplement the fitness program.

SAMPLE SAMPLE

SAMPLE



EQUIPMENT SELECTION

Most training programs will require the use of equipment.

Virtually all fitness facilities, such as gyms have a wide range of fitness equipment that the trainer could choose from.

Examples of common types of fitness equipment are:

- ☆ Treadmills
- ☆ Stationary bicycles
- ☆ Rowing machines
- ☆ Elliptical machines
- ☆ Stair climbers
- ☆ Weights

...just to mention a few



The facility may be a swimming pool or include a swimming pool.

Some common swimming equipment used for fitness training could include:

- ☆ Paddle boards
- ☆ Flippers
- ☆ Pull buoys
- ☆ Noodles
- ☆ Floatation devices

...just to mention a few

As a fitness instructor you may also need to suggest to the client the type of exercise clothing they should wear, including appropriate footwear.

So as a fitness professional, it would require you to know what equipment is available, how the equipment works and what training equipment is best used together with the training program plan you have developed.

**Learning
Activity**

Question

LEARNING ACTIVITY THREE

Here is a scenario. You have a client named Rose, who is 56 years of age and lives near a Westfield Shopping Centre.

As part of her fitness program you have suggested a few 'incidental exercises'.

What incidental exercises would you suggest?

SAMPLE SAMPLE

**Learning
Activity**

Research

LEARNING ACTIVITY FOUR

Although we did not mention it in this Section specifically, there is a type of exercise called 'interval training' that is often prescribed to older aged clients.

What is 'interval training'?

.

SAMPLE SAMPLE



DEVELOP AND DOCUMENT PROGRAM PLANS THAT INCORPORATE INSTRUCTIONAL INFORMATION AND GUIDANCE FROM MEDICAL OR ALLIED HEALTH PROFESSIONALS IF REQUIRED

When working with older aged clients, there will likely be the need to interact with medical professionals and other allied health professionals.

These interactions would need to take place during the fitness program planning stage and incorporate any advice or recommendations that you would have obtained from these professionals.

These professionals could include:

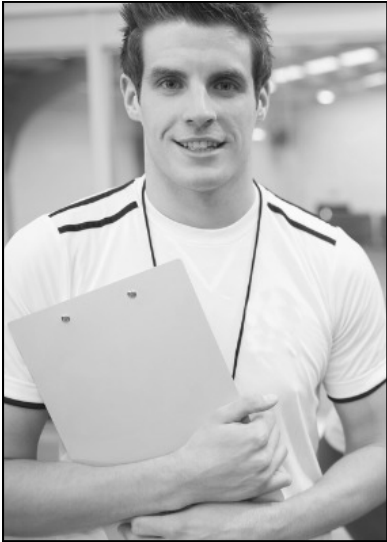
- ☆ Doctors (either the client's doctor or doctors that the fitness facility may have a relationship with)
- ☆ Dieticians or nutritionists
- ☆ Pharmacists
- ☆ Physiotherapists
- ☆ Psychologists
- ☆ Recreational therapists
- ☆ Occupational therapists
- ☆ Remedial massage therapists

Many of the clients that are older in age would have special needs and considerations when it comes to developing fitness programs.

These would include:

- ☆ Physical issues (disabled, injury, musculoskeletal problems and so on)
- ☆ Mental issues (depression)
- ☆ On medications
- ☆ Chronic health problems
- ☆ Dietary issues

...and so on.



Obtaining guidance or advice from health professionals can be sought using referral letters to the client's doctors and other health professionals they may be seeing.

A simple and brief letter can be written, remember health professionals are generally very busy so be concise and state only the facts that are relevant. As a guide the letter should contain the following:

- ☆ What the client is hoping to achieve
- ☆ What medical risk factors you have been notified of
- ☆ What fitness plan you are hoping to follow
- ☆ Request for feedback

The letter can then be sent to the health care professional or handed to your client to give to them directly.

It should include a copy of the pre-exercise health screening questionnaire and any functional capacity assessment results.

The fitness facility you may work for may have established a consulting relationship with various health professionals and you could approach these professionals when planning a fitness program for your client.

Remember, any advice or guidance you need or are seeking needs to be obtained at the planning stages of the fitness program for the client, so that it can be incorporated into the fitness program plan.

Fitness Program Plan



The next step in fitness planning is to start developing the fitness program plan.

Up to this point you should have gathered the following information:

- ☆ Goals, preferences and expectations of the client
- ☆ A completed pre-exercise health screening questionnaire
- ☆ If available any functional capacity assessment results
- ☆ Advice and/or guidance from health professionals

You will also have a clear understanding of what type of training method could be used and what equipment could be utilised within the chosen training method.

Developing a fitness program plan requires you to start documenting the details of the fitness program.

When you start documenting the fitness program plan, remember who your audience will be.

Generally the persons reading the plan will include:

- ☆ The client
- ☆ Other fitness instructors
- ☆ Health professionals

Although the content is very important, it needs to be concise, easy to read, understandable and legible if hand written.

SAMPLE SAMPLE



COMPONENTS OF FITNESS

The fitness plan will no doubt need to target most, if not all of the components of fitness.

The components of fitness include:

- ☆ **Cardiovascular / respiratory endurance** – The ability of body systems to gather, process and deliver oxygen
- ☆ **Stamina** – The ability of body systems to process, deliver, store and utilise energy
- ☆ **Strength** – The ability of a muscular unit, or combination of muscular units, to apply force
- ☆ **Flexibility** – The ability to maximise the range of motion at a given joint
- ☆ **Power** – The ability of a muscular unit, or combination of muscular units, to apply maximum force in minimum time
- ☆ **Speed** – The ability to minimise the time cycle of a repeated movement
- ☆ **Coordination** – The ability to combine several distinct movement patterns into a singular distinct movement
- ☆ **Agility** – The ability to minimise transition time from one movement pattern to another
- ☆ **Balance** – The ability to control the placement of the body's centre of gravity in relation to its support base
- ☆ **Accuracy** – The ability to control movement in a given direction or at a given intensity

It is important to understand that improvements in endurance, stamina, strength, and flexibility come about directly through fitness training.

However, improvements in coordination, agility, balance and accuracy come about through practice or repetitively doing a particular fitness exercise.

Power and speed are developed by both training and practice.

So as a fitness professional, you would take into account the recognised components of training when detailing the method of training and equipment required based on the client's goals, needs and considerations relating to their age, fitness condition level and associated health issues.



INSTRUCTIONAL INFORMATION

The next stage is to prepare a training program that includes instructional information.

Details of the training method or activity would be outlined and it would also need to include the type of equipment that would be used and a brief overview on its use.

This instructional information needs to include any advice or guidance from medical and other health professionals.

Generally the key instructional information would include:

- ☆ **Frequency** - how often should the client exercise?
- ☆ **Intensity** - how hard should the client exercise?
- ☆ **Time** - how long should each training session last?
- ☆ **Activity** - what exercise or training activity will help achieve the client's fitness goals?

Advice or guidance from doctors or health professions may include:

- ☆ Limits on frequency and intensity of training sessions
- ☆ Types of training activities allowed or not allowed
- ☆ What medications should be avoided
- ☆ Dietary changes or recommendations
- ☆ Areas of the body that need to be focused on or avoided
- ☆ Activities that should be limited or avoided
- ☆ Remedial or recovery activities required after training sessions

Advice or guidance from doctors or health professions is important to include in the fitness program plan as this will support the fitness program when presented to the client.

**Learning
Activity**

Question

LEARNING ACTIVITY FIVE

Included in the instructional information of the fitness program plan could include guidance and advice from health professionals.

What might this include?

SAMPLE SAMPLE



Fitness Program Benefits

EXPLAIN BENEFITS OF EXERCISE AND ANTICIPATED STRUCTURAL AND PHYSIOLOGICAL ADAPTATIONS AS THEY RELATE TO CLIENT GOALS AND NEEDS

When developing a fitness program plan, it needs to be addressing the needs, goals and expectations of the client.

The most important expectation of any fitness client would be how it will benefit them in the long run.

This is especially true for those seeking a fitness program who are in an older age group.

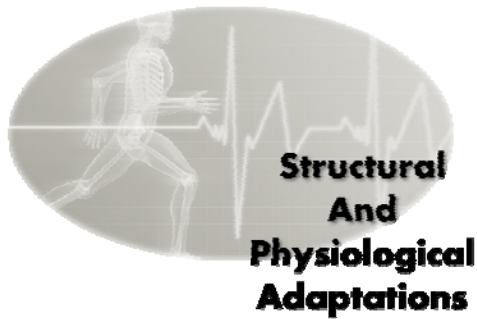
These clients not only have specific needs; they also have significant barriers to participation that need to be overcome.

Generally however, fitness training has its benefits for everyone.

It is commonly known that some of the benefits of physical activity are:

- ☆ General fitness
- ☆ Added strength
- ☆ Greater balance
- ☆ Enhanced flexibility
- ☆ Improved mental health and alertness
- ☆ Increased stamina

However, many of the fitness activities and programs are focussing specifically on a client's needs and there would be even more defined benefits to the client that you would want to explain.



ANTICIPATED STRUCTURAL AND PHYSIOLOGICAL ADAPTATIONS

Based on the client's goals and needs, a fitness program can bring about changes or adaptations to their fitness levels.

Research has shown that structural and/or physiological adaptations start to occur almost immediately when a client starts a new fitness program. There are many changes that occur throughout the body, however the most noticeable changes are those that affect the muscles, bones and cardiovascular system of the client's body.

These anticipated changes or adaptations need to be explained to the client as benefits of the fitness program that has been developed for them. Let's look at some of those potential adaptations or changes.

Muscle Adaptations—The neuromuscular system is one of the first systems of the body to respond and adapt to new training or exercise activities.

These changes are a result of the nerves in the spine becoming more responsive at stimulating the muscle fibres. They become more active and work at a faster rate. As a result, the client experiences increased strength and power.

Also, muscle growth occurs as a result of long-term resistance training. This changes both the size and number of muscle fibres.

Bone Adaptations—Like muscle tissue, bones also respond to exercise activities. The bones become stressed during exercise when the tendons and muscles pull on the bone.

This added strain on the bones stimulates the bones to become denser. Regular weight-bearing exercise such as strength-training, walking and jogging is directly related to bone growth.

Cardiovascular Adaptations—The cardiovascular system goes through many adaptations as a result of exercise activities. The heart becomes more efficient at pumping and delivering fresh blood to the muscle tissues.

Blood volume increases, new capillaries form to deliver more blood to the trained muscle, there are larger openings of existing capillaries and blood distribution becomes more efficient. As a result, your blood pressure improve, in response to regular aerobic endurance training.

BENEFITS TO OLDER AGED CLIENTS

Over the next few pages we look a benefits that those older aged clients with certain ailments could expect.

<i>Ailment</i>	<i>Benefits of Exercise</i>
<i>Osteoporosis</i>	<ul style="list-style-type: none"> Reduced bone loss Conservation of remaining bone tissue Improved muscular strength Improved physical fitness Increased mobility Improved reaction time Reduced risk of bone fracture caused by falls Better sense of balance and coordination Better mood and vitality Reduced pain
<i>Asthma</i>	<ul style="list-style-type: none"> Improved control (i.e. reduced symptoms and reliance on medication), oxygen uptake and aerobic fitness. Increased muscular strength and endurance
<i>Angina</i>	<ul style="list-style-type: none"> Decreased incidence of exercise-induced cardiac ischemia. Improved myocardial perfusion and reduced cardiac work.
<i>Heart Disease</i>	<ul style="list-style-type: none"> Improved coronary risk profile Augmented physiological functioning Improved quality of life Reduced mortality Lessening of cardiovascular symptoms Superior muscle fitness

<i>Ailment</i>	<i>Benefits of Exercise</i>
<i>Diabetes</i>	<p>Increased insulin sensitivity Improved glycemic control Shedding of extra body fat Reduction of blood pressure Improved circulation Boost energy and mood Improved blood cholesterol profile (i.e. cuts LDL lipoproteins and raises HDL lipoproteins) Strengthens the muscles and bones</p>
<i>Obesity</i>	<p>Reduced body fat/improved weight management Protection against associated morbidities (hypertension, diabetes, etc) Reduced risk for chronic diseases Reduced blood pressure Improved blood cholesterol profile Reduces incidence of anxiety and depression Improved joint health</p>
<i>Chronic Fatigue syndrome</i>	<p>Reduced incidence of fatigue and depression Reduced pain and stiffness Better quality of life</p>



EXERCISE CONSIDERATIONS AND THE AGEING PROCESS

Studies have shown that there is no connection between exercise and extending one's life.

Instead it has shown that exercise strengthens the body to help prevent many chronic diseases more prevalent in older people and this in itself increases the life expectancy.

Four of the most prominent chronic diseases – cardiovascular disease, cancer, chronic lung disease and type 2 diabetes - are linked by common and preventable biological risk factors, notably high blood pressure, high blood cholesterol as well as being overweight and by related major behavioural risk factors, such as the lack of exercise.

So exercise is an important part of keeping the Australian ageing population healthy.

However, the older population does have a higher of exercise intolerance, so the exercise activities developed for the older client must be those that take this into account.

Older individuals are studied, their longevity is often attributed to a healthy lifestyle. Three characteristic behaviours are routinely identified, which these include exercising regularly, maintaining a social network and maintaining a positive mental attitude.

Physiological factors that are most frequently associated with longevity and successful aging include low blood pressure, low body mass index, no sign of diabetes and low cholesterol. Along with a healthy diet, regular physical activity seems to be the only lifestyle behaviour identified to date, that can favourably influence a broad range of physiological and biomechanical systems and chronic disease risk factors and may also be associated with better mental health and social integration.

Therefore it seems that physical activity may be a lifestyle factor that clearly shows the differences between individuals who have and have not experienced successful aging.

**Learning
Activity**

Task

LEARNING ACTIVITY SIX

Strangely we learned that exercise and/or other physical activities does not prolong a person's life.

Why is this true and why should we still exercise anyway?

SAMPLE SAMPLE



DEVELOP CUSTOMISED TRAINING SESSIONS THAT INCLUDE A VARIETY OF EXERCISES AND EQUIPMENT TO MEET CLIENT NEEDS

The final step in developing a fitness program plan is the actual detailing of the customised training sessions.

As we earlier learned the plan would have included some key instructional information including frequency.

This would also relate to the training sessions. A training session refers to a set period of time that the client undertakes fitness training using a variety of activities and fitness equipment.

Over the past few pages we have been referring to clients that are older in age.

This means that the session design must cater not only to the client's goals and needs but also the limitations that they may have because of being of an older age.

Types of session designs can be described as follows:

- ☆ **Goal-oriented**—The aim is to develop a series of exercises that the client will execute over a period of time to reach desired goals taking into account any identified limitations
- ☆ **Disease, disability or injury-driven**—The point is to tailor the program to certain limitations or to provide a starting point for the client to develop from. Either way, the program is designed to help manage or overcome an obstacle and it's imperative to account for it when choosing exercises and choosing equipment.
- ☆ **Muscle-specific**—This can refer to an on going program that generalises on developing body muscles or to each session that focuses on specific muscles or muscle groups.
- ☆ **Joint action focused**—A session might focus, for example, on muscles that insert at the knee to allow for knee flexion and extension.



COMPOUND VERSUS ISOLATION TRAINING

Isolation exercises are single-joint movements that focus on one muscle group; weight training is a good example of isolation training. Compound exercises use multiple joints and muscle groups, such as squats or lunges.

Isolation exercises are best suited for muscle size and strength goals and are also great for beginners, youth, seniors and persons who may have limited motor coordination or who have been injured.

Compound movements are good for total-body training, time-limited sessions, functional training and those that have a high fitness level.

SAMPLE SAMPLE



CARDIOVASCULAR EXERCISES

Cardiovascular exercises are those that will get the client's heart rate up. These exercises are often prescribed for those clients that wish to lose weight and/or build stamina and endurance. There are several types of exercises that are considered good cardiovascular exercises and those below are examples often used for older aged clients.

Running and/Jogging—This is the common cardiovascular exercise. Indoor facilities use treadmills or have clients run around a basketball court or an outdoor running track.

Swimming—Facilities that have a swimming pool would use swimming as a cardiovascular exercise. This is ideal for older clients.

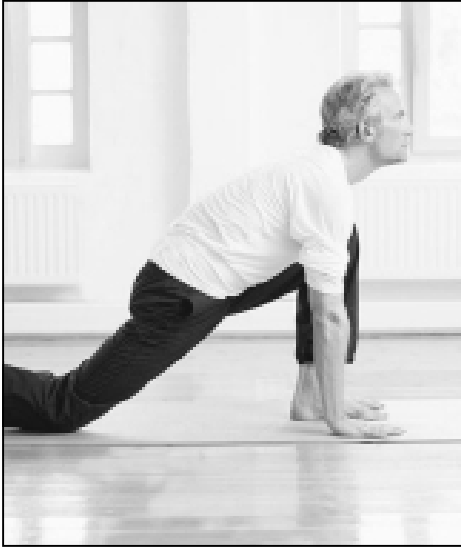
Cycling—Many fitness facilities have stationary exercise bikes and these are used for cardiovascular exercises.

Rowing—Rowing machines are common in fitness facilities and are used for cardiovascular exercises.

Stair climbing—Climbing stairs is a good cardiovascular exercise and many fitness facilities will have 'climber' machines to simulate stair climbing.

Dancing—In fitness centres trainers will use aerobic classes as a cardiovascular exercise, which generally are choreographed exercises simulating dancing.

SAMPLE SAMPLE



DYNAMIC WARM—UPS

All clients should be required to do a dynamic warm-up prior to activity to prepare the body for the demands of a fitness workout.

The idea of the dynamic warm-up routine is to do some basic leg stretches while moving/walking. Warm-up with exercises for both the upper and lower extremities

Dynamic warm-ups require dynamic movements and start with a slow walk (on a treadmill or on a track) for around 5 minutes.

Many fitness instructors then add other dynamic movements such as squats, high knee skips, lunges, straight leg kicks, or some lateral movements such as the lateral shuffle.

Many of the dynamic movements would include active movement of the arms.

The warm up should last around 10-15 minutes depending on the upcoming workout, or shorter depending on the client's age.

It is not advised that any stretching exercises be done until the dynamic warm-up exercises are fully complete.

In other words you warm up to stretch **NOT** stretch to warm up.

The advantages of a dynamic warm-up are:

- ☆ Increases core body temperature and blood flow to muscles
- ☆ Enhances muscle elasticity and lubricates joints
- ☆ Increases heart rate and respiratory rate which is the body's preparation for the demands of a workout
- ☆ It prepares the muscles and joints than static stretching would
- ☆ It enhances coordination and motor ability as well as revving up the nervous system
- ☆ A series of dynamic movements will develop flexibility, balance, coordination, mobility, and strength



DYNAMIC COOL-DOWN

All clients should be required to do a dynamic cool-down after a fitness workout.

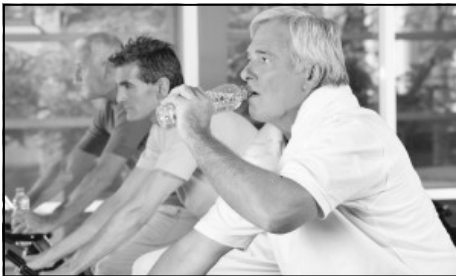
The idea of the dynamic cool-down routine is to:

- ☆ Allows your heart rate and blood pressure to slow gradually
- ☆ Helps to avoid dizziness or fainting that can sometimes occur with suddenly stopping an active work out
- ☆ It allows your body time to reset and relax prior to stretching
- ☆ Helps to flush waste products
- ☆ Decreases post work out soreness and enhances recovery time

Dynamic cool-downs basically start with a brisk run or jog (on a treadmill or on a track) and is slowly reduced down to a walk for 5 to 10 minutes.

The walk will then convert to slow long strides and at this time it is suggested that the client starts drinking fluids to re-hydrate.

Within 15 minutes the client's breathing should be normal and then they can begin their static stretching routine.



SAMPLE

SAMPLE SAMPLE



STATIC STRETCHING

After an exercise session and the cool-down, fitness instructors will provide their clients a series of static stretches.

Static stretches should never be done before a workout.

Static stretches are used to improve flexibility and cool your body down after you exercise and are therefore done when the body is standing still.

They reduce post workout stiffness and soreness.

Generally, each stretching exercise should be done for 20-30 seconds each and begin the stretch to a point when is just starts to feel uncomfortable.

Ease into and out of each stretch slowly and never bounce.

Breath normally.

There are many types of static stretches and on the next page we have shown the most common ones.

**Learning
Activity**

Task

LEARNING ACTIVITY SEVEN

Below are three pictures, each suggesting a type of exercise.

Tell us under each what type of exercise it is.

**1****2****3**

SAMPLE SAMPLE

**Learning
Activity**

Task

LEARNING ACTIVITY EIGHT

Tell us the six most common cardio exercises that are often prescribed to older aged clients.

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

SAMPLE SAMPLE



DISCUSS AND CONFIRM CLIENT UNDERSTANDING OF POTENTIAL SIGNS AND SYMPTOMS OF INTOLERANCE, PRECAUTIONS OR CONTRAINDICATIONS TO EXERCISE AND RECOMMENDED PRECAUTIONS

Most older aged clients require exercise modification; not only because of their medical condition. They may have specific requirements that their exercise programs must be tailored to meet.

Every fitness professional handling older aged clients must understand these specific requirements; as it enables you to recommend suitable fitness activities and identify unsuitable/contraindicated activities.

To meet these specific requirements, fitness activities, fitness goals, exercise techniques, fitness equipment and or fitness facilities may need to be modified.

However, it is very important that the older aged clients fully understand that while undertaking a fitness program they may need to communicate potential signs and symptoms of intolerance to the exercise activity.

They need to understand that there are activities they must avoid and there are precautions they need to take when undertaking a fitness program.



EXERCISE INTOLERANCE

Exercise intolerance is a common symptom among those who suffer from heart disease or metabolic disorders. In such cases, the normal conversion of food or oxygen into energy is disrupted, leaving the client without an adequate energy supply.

Degrees of exercise intolerance can vary. It can exhibit itself after the simplest exercises or become evident after more vigorous activity. Likewise, it can afflict the sufferer during exercise or later. Learning to identify exercise intolerance symptoms or signs is essential.

Feeling an unusual high level of fatigue during exercise activities—For even the physically fit, vigorous exercise taxes the organs and muscles of the respiratory system. When exhaustion is reached, continued effort can lead to shortness of breath and dizziness. These sensations signal that oxygen no longer is being processed efficiently and rest is required. In the case of an exercise intolerant individual, the exhaustion threshold may show within minutes of starting physical activity.

Muscle cramps—Muscle cramps happen to most persons doing vigorous exercising. However, the difference lies in the amount of exertion necessary to produce the cramps and the duration of their presence. A sufferer may endure only a few minutes of training before experiencing pain and stiffness, which can last for several days. Alternately, the pain can develop in the exercise intolerant hours later, perhaps when asleep.

Depression—Heightened activity can produce mental and emotional discomfort in those afflicted with exercise intolerance. Worse, the depression can rob them of more energy, creating a vicious cycle. Those facing major physical limitations find themselves at times feeling anxious, despondent, disoriented and irritable. Depression is a common sign of exercise intolerance.

Blood-pressure change—Large changes in blood pressure can occur in people with exercise intolerance. Those with exercise intolerance will have a blood pressure jump only after a few minutes of physical activity and find it difficult to get it down to normal in a reasonable time.

Cyanosis—This is when there is a discoloration of the extremities and face, appearing as a bluish colour and this can indicate abnormally oxygenated blood. This is a very visible sign of exercise intolerance and if this occurs, sufferers should seek medical attention to prevent a serious blood-flow disruption.

Other signs of exercise intolerance can include severe headaches, vomiting and severe post-training pain.



CONTRAINDICATIONS TO EXERCISE

Many older aged clients would need to have a doctor's approval before undertaking any physical exercise.

The advice from the doctor would clearly detail 'contraindications' to exercise or in simple terms, activities that must not be undertaken and/or included in any fitness program because of the likelihood of it causing harm to the client.

There are two types of contraindications to exercise 1) Absolute and 2) Relative.

Absolute contraindications to exercise would include:

- ☆ Persons that have had recent heart attacks
- ☆ Uncontrollable high blood pressure
- ☆ Blood clots
- ☆ Uncontrolled Type 1 diabetes

Relative contraindications are what a doctor considers health issues a client may have but a small amount of exercise would be permissible.

Those with absolute contradictions to exercise can graduate to relative contradictions to exercise after medical treatment and doctor's clearance.

Most clients with relative contraindications can exercise, although typically at lower levels of intensity than other clients.

At times, shorter bursts of higher intensity exercise with rests between attempts can be more accommodating than sustained moderate-intensity exercise. The exercise program may be modified for older clients with other disorders (e.g., arthritic disorders, particularly those involving major weight-bearing joints, such as the knees, ankles, and hips).

Patients should be clearly told to stop exercising and seek medical attention if they develop chest pain, light-headedness, or heart palpitations.



CONFIRMING THE CLIENT'S UNDERSTANDING

As a fitness professional it is very important that you have open discussions with older aged clients to ensure that they fully understand the potential signs of exercise intolerance, any contraindications to exercise and any exercise precautions they need to take when undertaking a fitness program.

This should be supported with any advice or guidance from health professionals.

They need to understand that if they experience any symptoms or signs of exercise intolerance they need to stop immediately and report this to the fitness instructor.

It may also require them to seek immediate medical attention.

Not ensuring that the client fully understands, can lead to the client doing harm to themselves while participating in a fitness program

Exercise/fitness professionals are guided by a code of conduct. This demands that fitness professionals perform their duties and responsibilities in a manner that professionally, ethically and morally compromises no client; irrespective of client's position, situation or social status.

There are legal and ethical limitations in prescribing and delivering exercise to older aged clients. You need to make clear to every client these limitations; explaining the boundaries of medical advice; what you can and cannot do. For example, clients must understand that you are not meant to diagnose a medical condition or give medical advice. This should be left to suitably qualified medical personnel.

Generally, moderate-risk and high-risk clients require the involvement of a doctor; to provide medical clearance and sometimes supervise pre-exercise testing. In addition, older aged clients need the input of a suitably qualified exercise, medical or allied health professional in the design and or administration of a modified exercise program.

Some fitness organisations make it a policy to have the clients sign a form confirming that they fully understand the potential signs of exercise intolerance, any contraindications to exercise and any exercise precautions they need to take when undertaking a fitness program.

**Learning
Activity**

Question

LEARNING ACTIVITY NINE

In this Section we reviewed eight signs and/or symptoms of exercise intolerance.

What were those eight signs or symptoms?

SAMPLE SAMPLE

Section Three

Instruct Exercise Session

SAMPLE SAMPLE

Section Four

Evaluate Program

SAMPLE SAMPLE

SELF ASSESSMENT

Self assessment is where you ask yourself certain questions to ensure you have understood what you have learned while reading this manual and completing the learning activities.

This unit requires you the student or trainee at the completion of your training to have a certain level of 'Required Knowledge' in which you would be need to have acquired and in which you will be assessed on.

This self assessment section reviews this required knowledge by way of questions and if you are able to say YES to all of them you can be confident your assessment will be satisfactory.

- ☆ Do you remember how using good questioning skills can assist in becoming a good communicator with older clients?
- ☆ Can you recall how to calculate a clients 'body mass index' (BMI)?
- ☆ Are you able to explain what type of client information should be included in a referral letter?
- ☆ Do you know what methods are used when administering a 'submaximal exercise test'?
- ☆ Can you describe the 5 common myths older people often use which become barriers to their exercise program?
- ☆ Are you able to understand some of the benefits exercise can provide to an older population?
- ☆ Do you remember what type of information would be included in a 'client profile'?
- ☆ Can you recall the factors that could lead to an older client tripping or falling in an exercise environment, as well as why these types of accidents could have very serious consequences for them?
- ☆ Are you able to explain to us some of the suitable exercises or fitness activities that would be suitable for the following categories or clients;
 - a) Asthmatic?
 - b) Elderly?
 - c) Injured/disabled?
- ☆ Do you know what the various components of fitness include, as well as how these components need to be taken into consideration when developing a fitness program for an older aged client?
- ☆ Can you describe how the following structural and physical adaptations begin to occur in a clients fitness level, as well as why these changes need to be explained to older clients:
 - a) Muscle adaptations?
 - b) Bone adaptations?
 - c) Cardiovascular adaptations?
- ☆ Are you able to understand why a client should do a dynamic warm-up before as well as a dynamic cool-down after fitness activities?

If there were any questions that you were unable to confidently say YES to, we encourage you to review the information again in this manual and if needed seek the assistance of your teacher or trainer.

- ☆ Do you remember what types of clients would fit into the following categories of contraindication to exercise;
 - a) Absolute?
 - b) Relative?
- ☆ Can you recall what is meant by non-verbal communication?
- ☆ Are you able to explain how the fitness instructor should communicate a newly created fitness program to the client?
- ☆ Can you describe what 'Cyanosis' means and what a fitness instructor should immediately do if a client is showing symptoms of this type of exercise intolerance?
- ☆ Are you able to understand what 'exercise intensity' means, as well as why a fitness instructor may need to make modifications to a clients profile because of this factor?
- ☆ Do you remember why a fitness instructor may be required to continue to interact with medical or allied health professionals when providing fitness programs for older aged clients?
- ☆ Can you recall how a fitness instructor can encourage or motivate a struggling client as well as a client that is done well in their fitness goals?
- ☆ Are you able to explain how the proper application of 'kinesiology' can help to eliminate safety issues that may arise with older clients?
- ☆ Can you describe how to help motivate or make adjustments to a clients fitness program in order to achieve their fitness goals?
- ☆ Are you able to understand why it is important to keep accurate session documents, as well why these documents must be appropriately stored when not in use?
- ☆ Do you remember what the three phases of the rate of a clients progression are in regard to their fitness program?
- ☆ Can you recall the various ways to request and/or receive feedback from clients?
- ☆ Are you able to explain how a fitness instructor can identify certain areas that a client may need to focus on during their fitness activities, as well as examples of the types of modifications that may need to be made in order to provide this?
- ☆ Do you know why client confidentiality must always be maintained in regard to the documentation or records made of their fitness programs?

If there were any questions that you were unable to confidently say YES to, we encourage you to review the information again in this manual and if needed seek the assistance of your teacher or trainer.

NOTES

SAMPLE SAMPLE