

CASE STUDY #1 – SCENARIO:

Michelle is a 28-year old pregnant female. She has been exercising two to three times per week for the last six months. She has just found out she is 6 weeks pregnant with her first child. Michelle is available to workout 2-3 times per week for one hour each time. She is a part time teaching assistant at an elementary school.

Phase I Situation	
Her Goals	 Wants to maintain a reasonable level of fitness during pregnancy. She heard it helps with delivery. Does not want excessive weight gain during pregnancy Wants to maintain her energy levels during pregnancy Does not want to endanger baby due to exercise
Height	5 ft. 5 in.
Weight	145 lbs.
Resting BP	128/82 mmHG
Resting HR	72 bpm
Blood Lipids	Normal
Medication	None
Max METS	Will change due to pregnancy
Availability	See intro
Activities	 Occasionally walks with husband
	 Plays recreation softball 1x/week during summer
Injuries	None; lower back occasionally aches
Medical Diagnosis & Prescription	Pregnant; Physician clearance to exercise
Lifestyle	Sometimes misses breakfast
-	Sleeps 7-8 hrs/night
	Semi-active 9am-3pm job

Phase II Situation

Baby has arrived 8 months ago and she would like a new program to help her get back in shape

CAST STUDY #1 - HEALTH SCREENING QUESTIONNAIRE:

Taking part in any activity or exercise program can be an excellent way to improve or maintain your health and fitness levels, but preparation is required to enable a safe and effective program. Please answer the following questions to assess your own physical readiness:

		Yes	No
1.	Do you have any health or medical concerns? If yes, please specify <u>6 weeks pregnant</u>	Х	
2.	Are you currently taking any medication? If yes, list medications and for what condition		Х
	Medication Condition		1
	Medication Condition		
3.	Do you smoke? If yes, how much?		Х
4.	Do you, or have you ever had, any of the following health conditions?		
	Blood Pressure Concerns:		Х
	Heart Murmur:		Х
	Any heart trouble:		Х
	Chest pains/pressure:		Х
	Disease of arteries:		Х
	Asthma/allergies:		Х
	High Cholesterol:		Х
	Back injury		Х
	Back pains:	Х	
	• Epilepsy:		Х
	Diabetes:		Х
	Varicose veins:		X
	Lung Disease:		X
	Dizziness/Fainting spells:		X
	Arthritis:		X
	Osteoporosis:		X
5.	Have you ever injured or have pain in the following areas? If yes, please elaborate.		Λ
0.	Neck:		Х
	Upper Back:		X
	Shoulders:		X
	Elbows:		X
		Х	^
		^	V
	Hips:		X
	Wrists:		
,	Knees:		Х
6.	Have you had surgery in the past two years? If yes, when and for what:		Х
7.	Are you currently undergoing treatment from any of the following? If yes, why? Occasional lower back pain from occupation		1
	Physiotherapist		Х
			X
	Chiropractor Massage Therepict	Х	^
	Massage Therapist Other Dractilinear	^	Х
0	Other Practitioner Are you program how planning to be or have been in the pact 6 months?	v	۸
8.	Are you pregnant now, planning to be or have been in the past 6 months?	Х	V
9.	Are you over 50 years of age?		X
10.	Do you have any physical limitations/injuries?		X
11.	Is there any reason not mentioned above, why you feel you should not participate in a regular physical exercise program?		Х

If you answered YES to *any* of the above questions, please consult with your health care practitioner prior to taking part in an exercise program. Listen to any special advice or recommendations made by this specialist.

If you have answered NO to *all* of the above questions, you can be reasonably assured of your present suitability to take part in an exercise program designed by your trainer.

I, <u>Case Study – Michelle</u> declare that the information given her by me is true and correct to the best of my knowledge. Any health problems which would prevent me from engaging in physical activities or make it potentially dangerous or harmful for me to engage in such activities have been described here by me.

Michelle Case Study Signature of Participant ___<u>14 April, 2004</u>_____

CASE STUDY #1 – LIFESTYLE QUESIONNAIRE

Name: Case Study #1 – Michelle	Date: 14 April, 2004	
Physical Activity		
1. In the past year, how often have you beer	n engaged in physical activit	γ?
> 4 times/week		-
3 to 4 times/week		
2 to 3 times/week		
1 to 2 times/week		
1 to 2 times/month		
None		
2. List your current physical activities: Walks	s, recreational softball	
3. What types of physical activity do you cor		
4. What types of exercise interest you?		
Walking		Swimming
Cycling	Dance Exercise	Strength Training
Stationary biking	Rowing	Racquetball
Tennis	Other aerobic	Stretching
Support/Exercise Adherence		
5. What are your personal barriers to exercise		
What physical activity have you been suc		d and participated in regularly)? Walking
7. Have you ever been at your desired fitnes		
If yes, when? What were yo		
 Do you feel any family; friends or co-work Yes □ No X 	ers have negative feelings (i.e., disapproval, resentment) toward your efforts at physical activity?
 Is your significant other or a close friend in Yes	nvolved in any regular physi	cal activity and supportive in your physical activity goals?
10. Do you start exercise programs but then	find yourself unable to stick	x with them? Yes 🖂 No 🗌
Occupation/Leisure		
11. What is your present occupation? Teach		
12. Does your occupation require much activ		and down, carrying things)?
Yes, walking, kneeling, bending and standin		
13. What are your usual leisure activities? <u>M</u>		
14. What are the physical demands of these	e activities? <u>None</u>	
Stressors		
15. What types of things make your feel stre	essed? Lack of money and in	ah security
To what types of things make your reer stre	Luck of money and the	<u>boouny</u>

16. How do you deal with your stress normally? I don't

Dietary Patterns

- 17. How many meals do you have per day? <u>3 per day</u>
- 18.How many snacks do you have per day? None
- 19. Do you feel you eat healthy "most of the time"? Yes
- 20. How many glasses of water do you drink per day? 3 per day

Expectations

21. Specifically describe what you would like to accomplish through your fitness program during the next:

- 1 month: Safe exercises to perform during my pregnancy
- 4 months: Maintain a healthy weight gain during my pregnancy
- 1 year: Return to pre-pregnancy weight



Ben is a 42 year old owner of a website design company. Before starting his company 8 years ago, he used to be very active lifting weights 2x a week and running on the weekends. He now finds that he only has time to play rugby 2x a week after work because he typically works 8-10 hours per day. Lately he has been noticing that he feels a dull ache in the centre of his right knee after rugby. Ben would like to start working out in the weight room again because he feels that he is not doing enough. He would also like to run a 10km race in the next year. His main concern is time and his knee. He has also started to notice that his once in-shape, toned body is starting to feel flabby. He would like you to set him up on a program that he can do a few times a week.

Phase I Situation

His Goals	Start working out in the weight room again
HIS GOAIS	Start working out in the weight room again
	 Wants to lose some weight
	Wants to manage his knee pain
Height	5 ft. 7 in.
Weight	200 lbs.
Resting BP	120/80 mmHG
Resting HR	85 bpm
Blood Lipids	Total Cholesterol = 5.0 mmol/l (196 mg/dl)
	HDL = 1.0 mmol/l (37 mg/dl)
	LDL = 3.0 mmol/l (115 mg/dl)
Medication	Advil for knee pain
Max METS	8 METS or a Max VO ₂ of 28.0 ml/kg/min
Availability	After work around 8 pm; 3x/week
Activities	Rugby after work for 2 hours, 2x/week
Injuries	Knee pain during and after his rugby games
Medical Diagnosis & Prescription	 Exercise prescription from physiotherapist
	 Patellofermoral Stress Syndrome
	 Stretch Hamstrings, Gastrocnemius, IT Band
	 Strengthen and balance VMO and VL
	 Watch for proper patellar tracking and over pronation of the foot
Lifestyle	 Non-smoker, social drinker (3-5 glasses of wine a week)
,	Eats out a lot at fast food places
	 Sits at a computer for most of the day and talks on the phone
	 Some low back stiffness and definite forward head posture
	 Single, sleeps 6-7 hours a night and often has a hard time falling asleep at night

Phase II Situation

1 year later; he has been working out consistently with weight 2x/week: RHR 70 bpm; knee pain is gone; running 2x/week 1 hour per session; wants to start building size.

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Appendix B

CASE STUDY #2 - HEALTH SCREENING QUESTIONNAIRE

Taking part in any activity or exercise program can be an excellent way to improve or maintain your health and fitness levels, but preparation is required to enable a safe and effective program. Please answer the following questions to assess your own physical readiness:

I		Yes	No
1.	Do you have any health or medical concerns? If yes, please specify knee pain	Х	
2.	Are you currently taking any medication? If yes, list medications and for what condition	Х	
	Medication Advil Condition sore knee		
	Medication Condition		
3.	Do you smoke? If yes, how much?		Х
4.	Do you, or have you ever had, any of the following health conditions?		
	Blood Pressure Concerns:		Х
	Heart Murmur:		Х
	Any heart trouble:		Х
	Chest pains/pressure:		Х
	Disease of arteries:		Х
	Asthma/allergies:		Х
	High Cholesterol:		Х
	Back injury		Х
	Back pains:		Х
	Epilepsy:		Х
	Diabetes:		Х
	Varicose veins:		Х
	Lung Disease:		Х
	Dizziness/Fainting spells:		X
	Arthritis:		Х
	Osteoporosis:		X
5.	Have you ever injured or have pain in the following areas? If yes, please elaborate.		
	Neck:		Х
	Upper Back:		Х
	Shoulders:		Х
	Elbows:		Х
	Lower Back:		X
	Hips:		X
	Wrists:		X
	Knees:	Х	~
6.	Have you had surgery in the past two years? If yes, when and for what:	Л	Х
7.	Are you currently undergoing treatment from any of the following? If yes, why? <u>Patella femoral stress syndrome</u>		Λ
7.	Physiotherapist	Х	
	Chiropractor	Л	Х
	Massage Therapist		X
	Other Practitioner		X
0			
8.	Are you pregnant now, planning to be or have been in the past 6 months? Are you over 50 years of age?		X
9.		V	Х
<u>10.</u> 11.	Do you have any physical limitations/injuries? Is there any reason not mentioned above, why you feel you should not participate in a regular physical exercise	Х	Х
11.	program?		~

If you answered YES to *any* of the above questions, please consult with your health care practitioner prior to taking part in an exercise program. Listen to any special advice or recommendations made by this specialist.

If you have answered NO to *all* of the above questions, you can be reasonably assured of your present suitability to take part in an exercise program designed by your trainer.

I, <u>Case Study – Ben</u> declare that the information given her by me is true and correct to the best of my knowledge. Any health problems which would prevent me from engaging in physical activities or make it potentially dangerous or harmful for me to engage in such activities have been described here by me.

Ben Case Study Signature of Participant <u>6 June, 2004</u> Date

CASE STUDY #2 – LIFESTYLE QUESTIONNAIRE

Name: <u>Case Study #2 – Ben</u>

Date: <u>6 June, 2004</u>

Physical Activity

- 1. In the past year, how often have you been engaged in physical activity?
 - > 4 times/week
 - 3 to 4 times/week
 - 2 to 3 times/week
 - 1 to 2 times/week
 - 1 to 2 times/month
 - None
- 2. List your current physical activities: Rugby 2 x per week
- 3. What types of physical activity do you consider "fun"? Rugby
- 4. What types of exercise interest you?

Walking Cycling Stationary biking

Dance Exercise Rowing

Swimming Strength Training Racquetball Stretching

Tennis Support/Exercise Adherence

- 5. What are your personal barriers to exercise (i.e., your reasons for not exercising)? Job; computer; tired
- 6. What physical activity have you been successful with in the past (liked and participated in regularly)? Weight Training
- 7. Have you ever been at your desired fitness level? Yes⊠ No
- If yes, when? <u>8 years ago</u> What were you doing? <u>Running and weight training</u>
- 8. Do you feel any family; friends or co-workers have negative feelings (i.e., disapproval, resentment) toward your efforts at physical activity? Yes No
- 9. Is your significant other or a close friend involved in any regular physical activity and supportive in your physical activity goals? Yes⊠ No_
- 10. Do you start exercise programs but then find yourself unable to stick with them? Yes X No

Occupation/Leisure

- 11. What is your present occupation? Website Designer
- 12. Does your occupation require much activity (i.e., walking, getting up and down, carrying things)? No
- 13. What are your usual leisure activities? Eating out
- 14. What are the physical demands of these activities? None

Stressors

- 15. What types of things make your feel stressed? Lack of time
- 16. How do you deal with your stress normally? Drinks

Dietary Patterns

- 17. How many meals do you have per day? <u>2 per day</u>
- 18. How many snacks do you have per day? 3 snacks per day
- 19. Do you feel you eat healthy "most of the time"? No

20. How many glasses of water do you drink per day? None, 5 cups of coffee per day

Expectations

- 21. Specifically describe what you would like to accomplish through your fitness program during the next:
 - 1 month: Decrease knee pain
 - 4 months: Lose 20 lbs.
 - 1 year: Run the 10km. Sun Run Race





CASE STUDY #3 – SCENARIO

Donald is a 69 year old retired farmer whose physical activity has decreased since selling his farm. He and his wife want to travel, but he is having a hard time getting around due to osteoarthritis gradually developing in his hips. He also has a family history of diabetes and he is borderline himself, but not yet on medication. His doctor recommends exercise to help control it. He has gained about 15 lbs. since retiring and has gone up 2 waist sizes. Donald takes Tylenol for his arthritis and is trying mint tea to combat the possible diabetes onset. He used to enjoy curling once a week with his wife, five years ago. He has had several farm related injuries over the years, but he has healed well. Donald has plenty of free time and would like to improve his fitness level for a short trip he has planned in 3 months.

Phase I Situation		
His Goals	 Prevent onset of diabetes 	
	 Lose 15 lbs. 	
	 Increase mobility and independent living 	
Height	5 ft. 8 in.	
Weight	185 lbs.	
Resting BP	142/85 mmHG	
Resting HR	74 bpm	
Blood Lipids	Not available	
Medication	Tylenol for arthritis	
Max METS	Not available	
Availability	Flexible	
Activities	Seasonal homeowners chores (lawn cutting, etc.); walks	
	1x/week with wife	
Injuries	Low back pain; treated by physiotherapist 5 years ago	
Medical Diagnosis & Prescription	Physician prescribes exercise	
	 Borderline diabetic 	
	 Borderline hypertensive 	
Lifestyle	 Non-smoker, social drinker (6 beers a week) 	
	 Predominantly meat and potatoes diet 	
	 Watches a lot of TV 	
	 Some low back stiffness 	

Phase II Situation

6 months later; he has been weight training consistently 2x/week and cardio 3x/week

CASE STUDY #3 - HEALTH SCREENING QUESIONNAIRE:

Taking part in any activity or exercise program can be an excellent way to improve or maintain your health and fitness levels, but preparation is required to enable a safe and effective program. Please answer the following questions to assess your own physical readiness:

•		Yes	No
1.	Do you have any health or medical concerns? If yes, please specify <u>Osteoarthritis of the hip; borderline</u> diabetic; borderline high blood pressure	Х	
2.	Are you currently taking any medication? If yes, list medications and for what condition	Х	
	Medication Tylenol Condition Arthritis		
	Medication Condition		
3.	Do you smoke? If yes, how much?		Х
4.	Do you, or have you ever had, any of the following health conditions?		
	Blood Pressure Concerns:	Х	
	Heart Murmur:		Х
	Any heart trouble:		Х
	Chest pains/pressure:		Х
	Disease of arteries:		Х
	Asthma/allergies:		Х
	High Cholesterol:		Х
	Back injury		Х
	Back pains:		Х
	Epilepsy:		Х
	Diabetes:	Х	
	Varicose veins:		Х
	Lung Disease:		Х
	Dizziness/Fainting spells:		Х
	Arthritis:	Х	
	Osteoporosis:		Х
5.	Have you ever injured or have pain in the following areas? If yes, please elaborate.		
-	Neck:		Х
	Upper Back:		Х
	Shoulders:		Х
	Elbows:		X
	Lower Back:		X
	Hips:	Х	7.
	Wrists:	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Х
	Knees:		X
6.	Have you had surgery in the past two years? If yes, when and for what:		X
7.	Are you currently undergoing treatment from any of the following? If yes, why?		Λ
	Physiotherapist		Х
	Chiropractor		X
	Massage Therapist		Х
	Other Practitioner		<u>Х</u>
8.	Are you pregnant now, planning to be or have been in the past 6 months?		X X
<u>9</u> .	Are you over 50 years of age?	Х	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
10.	Do you have any physical limitations/injuries?	X	
11.	Is there any reason not mentioned above, why you feel you should not participate in a regular physical exercise		Х
	program?		~

If you answered YES to *any* of the above questions, please consult with your health care practitioner prior to taking part in an exercise program. Listen to any special advice or recommendations made by this specialist.

If you have answered NO to *all* of the above questions, you can be reasonably assured of your present suitability to take part in an exercise program designed by your trainer.

I, <u>Case Study</u> –<u>Donald</u> declare that the information given her by me is true and correct to the best of my knowledge. Any health problems which would prevent me from engaging in physical activities or make it potentially dangerous or harmful for me to engage in such activities have been described here by me.

Donald Case Study Signature of Participant

__<u>16 October, 2004</u>_____

CASE STUDY #3 - LIFESTYLE QUESIONNAIRE

 1. In the past year, how often have you been engaged in physical activity? > 4 times/week 3 to 4 times/week 2 to 3 times/week 1 to 2 times/week 1 to 2 times/month None 2. List your current physical activities: Walking and seasonal homeowners activities (cutting grass, etc.)
3. What types of physical activity do you consider "fun"? Curling
4. What types of exercise interest you? Walking Jogging Swimming Cycling Dance Exercise Strength Training Stationary biking Rowing Racquetball Tennis Other aerobic Stretching
Support/Exercise Adherence
5. What are your personal barriers to exercise (i.e., your reasons for not exercising)? Lack of mobility
6. What physical activity have you been successful with in the past (liked and participated in regularly)? Curling
7. Have you ever been at your desired fitness level? Yes No
If yes, when? Pre-retirement What were you doing? Farming
8. Do you feel any family; friends or co-workers have negative feelings (i.e., disapproval, resentment) toward your efforts at physical activity' Yes No
9. Is your significant other or a close friend involved in any regular physical activity and supportive in your physical activity goals?
Yes 🖄 No 🗂
10. Do you start exercise programs but then find yourself unable to stick with them? Yes No NA
Occupation/Leisure
11. What is your present occupation? <u>Retired Farmer</u>
12. Does your occupation require much activity (i.e., walking, getting up and down, carrying things)? <u>No</u> 13. What are your usual leisure activities? Watching TV
14. What are the physical demands of these activities? None
Stressors

- 15. What types of things make your feel stressed? Age/mobility
- 16. How do you deal with your stress normally? N/A

Dietary Patterns

- 17. How many meals do you have per day? <u>3 per day</u>18. How many snacks do you have per day? <u>Varies/evening</u>
- 19. Do you feel you eat healthy "most of the time"? Yes

20. How many glasses of water do you drink per day? 2-3 per day

Expectations

21. Specifically describe what you would like to accomplish through your fitness program during the next:

- 1 month: Decrease hip pain and increase mobility
- 4 months: Lose 15 lbs.

1 year: Return to pre-retirement activity level