Developing Assignments for FitFocus

A Portion of the Presentation
"Healthy Active Living Exercises"
for Special Area Group Conference
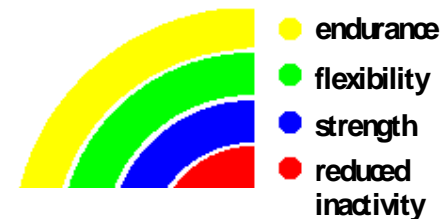Winnipeg, October 2009

- Sarah Prowse and Rachel Prowse
  FitFocus

Software for Physical Activity Analysis

(complement to FoodFocus: nutrition analysis software)

Phone: 204-453-6060

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fitfocus

Balancing an Active Lifestyle

- endurance
- flexibility
- strength
- reduced inactivity

Structuring Assignments using FitFocus

- HELP information

- Comparing activities in a related group

- Adding strength and flexibility components

- Analysis of more than one activity

- Saving an activity list to a file

- Sorting an activity list

- Changing data in an activity list.

Help Information

- Q. *What is endurance*?

Use: HELP/ ENDURANCE

- Q. *How does inactivity affect one's health*?

Use: HELP/ INACTIVITY

Help Information

- Q.   *If I am 5'10" and weigh 170 pounds, what is my Body Mass Index and what is its significance?*

Use HELP/ BODY COMPOSITION/ BODY MASS INDEX

A.   BMI = 24 and recommended range is 20 - 25.

Comparing Activities in a Group *

■ Q. *What are the least and the most intense winter activities*?

Use

■ ACTIVITY BY TYPE/ ACTIVITIES/ WINTER/ ALL

■ SORT/ by ENERGY RATE/ MET or
SORT/ by ENERGY RATE/ KCALORIES/HR

■ A.   Least: snowmobiling
Most: cross-country ski uphill

(Note - lower corner shows energy rate,
snowmobiling 3.5 MET (245 kcal/hr),
ski 16.5 MET (1155 kcal/hr))

* By Intensity

Comparing Activities in a Group*

Similarily

- Q. *What are examples of work activities that are 'inactive'?*

Use

- ACTIVITY BY EFFORT/ INACTIVE
- SORT/ by ENERGY RATE/ MET

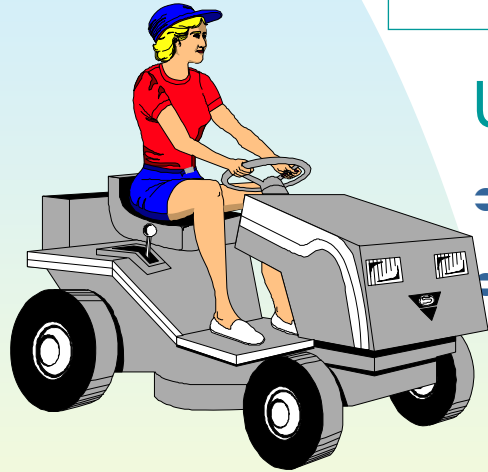- A. Sitting at desk, Milking by machine, Typing/computer use, Police riding in car

(Note - Sort is from most to least so most intense activities are on top.)

* By Intensity
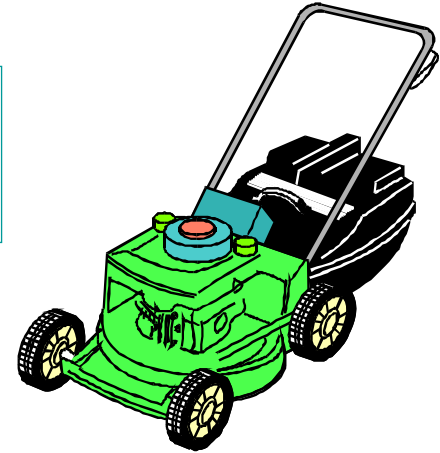
Comparing Activities in a Group*

- Q. *What is the range of effort to mow a lawn*?

Use

- ➲ Search "mow lawn"
- ➲ SORT/ by ENERGY RATE/ MET or SORT/ by ENERGY RATE/ KCALORIES/HR
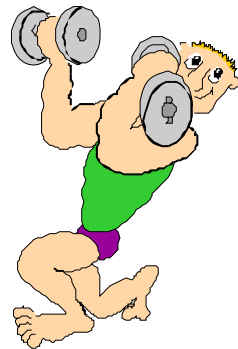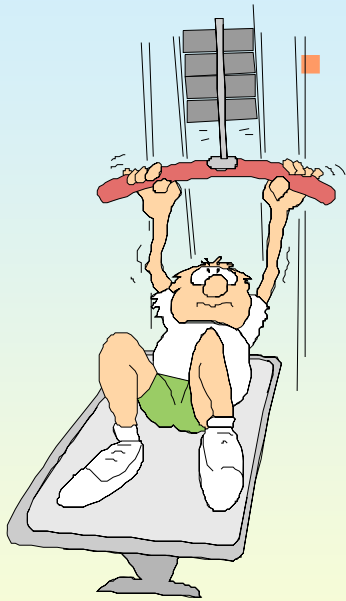
- A.   Riding mower   2.5 MET (175 Kcal/hr)
       Power mower   5.5 MET (385 Kcal/hr)
       Hand mower   6.0 MET (420 Kcal/hr)

* By Intensity

Adding Strengthening Exercises

- Q. *How do 1 set of 10 reps of:*
  Heel raises
  Situps
  Chinups
  Pushups
  twice a week compare to guidelines*?

- Search "Calisthenics"
- Enter date, duration (and effort, heart rate)
- Select "Add Details"
- Add Exercises

A. 40% of target reps, 40% of muscle groups

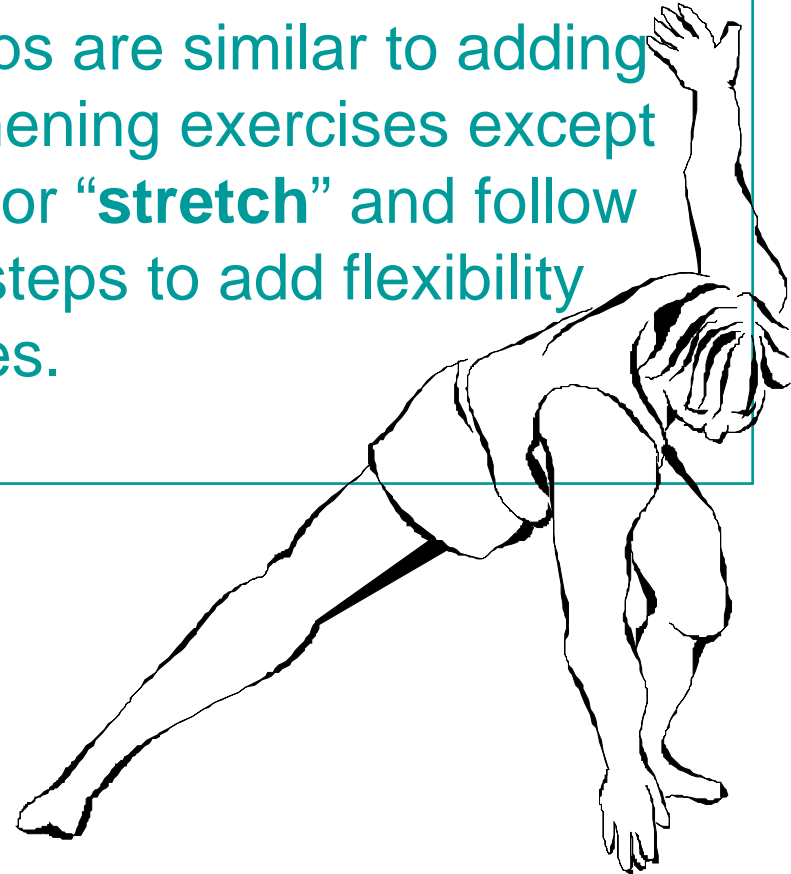***** Guidelines based on Health Canada and professional recommendations.

Adding Flexibility Exercises

Steps

- The steps are similar to adding strengthening exercises except search for "**stretch**" and follow similar steps to add flexibility exercises.
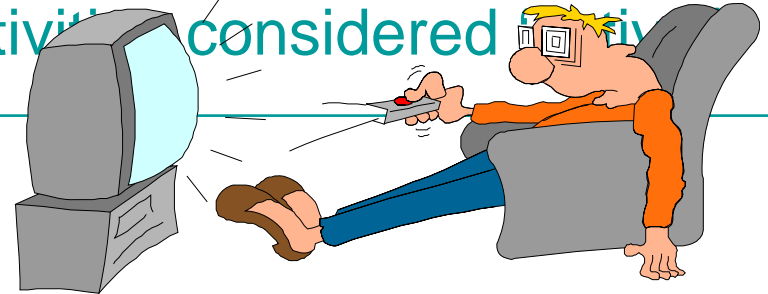
Analysis of More than One Activity

■ Q. *How would light office work 8 hr/work day; 4 hrs per day sitting in a car, reading or TV watching compare to endurance and inactivity guidelines?*

Steps

- Search for "light office"
- Enter 8 hr/day, 5 days/week
- Search for "sit TV", enter 4 hr/day, 7 days/week
- View Analysis Results:
  - Endurance 0% (ie bad)

  - Inactivity 5 % (due to excessive inactivity)
    - Benefits 0% (no activity considered activity

Analysis of More than One Activity

- Q. *How would a summer job that daily involves 1 hr of laying sod + 1 hr general gardening compare to endurance guidelines?*

S t e p s

↪ Select by Type\ Work\ Lawn & Garden\ All

↪ Select Laying Sod, 1 hr/day, 5 days/week

↪ Select Gardening General, 1 hr/day, 5 days/week

↪ View Analysis Results:

      Endurance 161%

      Inactivity   100%   (ie good)

      Benefits   100% - 242%

(excluding Living Restrictions

which is most relevant for older persons)

Sorting Activity List

- Q. *Which takes the most energy?*
  - *running 1 mile (8 min/mile or 5 min/km)*
  - *walking 1 mile (15 min/mile or 15 min/1.6 km)*

Steps

- Load all activities into list
- SORT/ by ENERGY/KCAL
- View results (select item, read bottom line):
  run 1 mile   117 Kilocalories
  walk 1 mile   88 Kilocalories

Save and Restore Activity List

Steps

- Use activities from last example (walk, run 1 mile)
- FILE\ SAVE ACTIVITY LIST\ NEW FILE
- Enter file name (i.e. WalkRunTest)
- FILE\ NEW ACTIVITY LIST (to get rid of list)
- FILE\ LOAD ACTIVITY LIST\ NEW FILE (select file WalkRunTest and activities are restored)

Changing Quantities in a List

■ Q. *How can I modify the duration of an activity and add stretching exercises?*

S T E P S

- ➲ Use activity list from last example (run 1 mile)
- ➲ Double click on activity
- ➲ Select "Update Activity"
- ➲ Enter new duration
- ➲ Select "Add Details" and add stretching exercises as in previous example
- ➲ OK to save changes and update selected activity

Copy Activity in a List

- Q. *How can I copy an activity and create a similar activity on another date?*

STEPS

- Use activity list from last example (run 1 mile)
- Double click on activity
- Select "Copy Activity"
- Enter new date and any other changes
- OK to save changes and add to list as a new activity item
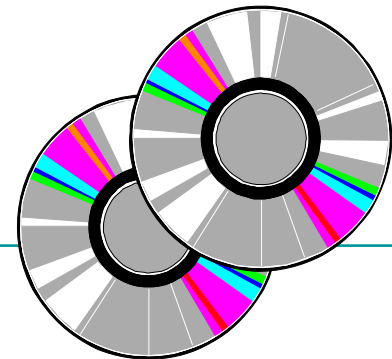
Presentation Overview

- Tour of FitFocus program

- Developing assignments with FitFocus

- Answering basic health/fitness questions with FitFocus

- **Sample physical activity analysis assignment with health benefit considerations**

- Curriculum relevance of computer analysis of activities and FitFocus design features

Sample Assignment

Choose endurance activities for a sedentary 17 year old whose only initial activity is walking the dog (20 min, once per week). Objectives include:

- meet 70% of the active time (and energy) target

- represent at least three different activity groups

- include at least one activity of moderate intensity

- spend at least 30 min/week in heart rate target zone in an activity requiring vigorous intensity

- achieve at least 70% of disease risk reduction associated with physical activity

- no more than one activity that involves a cost

Some Alternative Approaches To Try
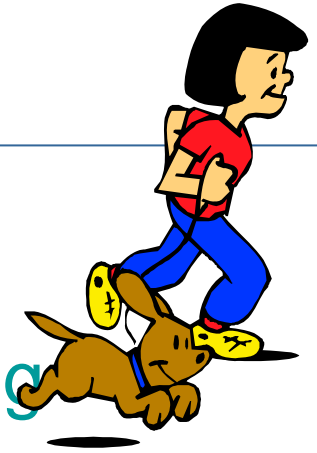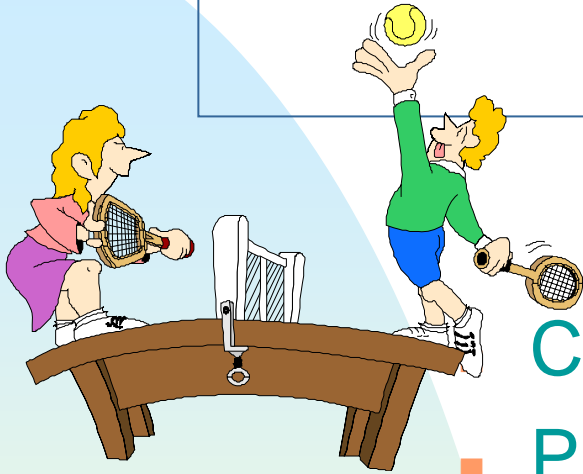
Continue just walking the dog

- Play catch or other sport on weekend
- Start walking to class (20 min each way)
- Start running program (assume 10 min mile possible with 150 bpm heart rate)

FitFocus Demonstration

Use FitFocus To:

- set "Who" to 17 year old (note heart rate range)

- choose selected activities, duration & effort

- check rainbow display

- use "Endurance" analysis to compare to time and energy targets and view actual and perceived effort

- adjust durations and/or add/delete activities to meet assignment objectives

- use "sort" to find activities which are most appropriate

FitFocus Demo   Initial State

1. Select – use By Search "walk dog"

    - 20 minutes (assume pulse 100bpm)

    - once per typical week (Wed)

✗   Note: only one type of activity
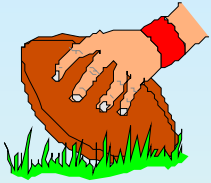
2. Analysis: Rainbow shows low endurance

✗ ✗ ✗   - Endurance analysis: low scores for active time and energy expended; activity light not moderate and not in heart rate zone

✗ ✗ ✗ ✗   - Benefits analysis: disease reduction low

✔   - Cost OK

FitFocus Demo   Add Catch

1. Select * catch football (by Search)
        * 60 minutes
        * once per typical week (Sat)

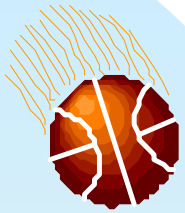✘   Note: only 2 activity groups

2. Analysis: Rainbow no change

✘ ✘ ✘   * Endurance Analysis: activity is "light", has no impact

✘ ✘ ✘ ✘   * Benefits Analysis: no change
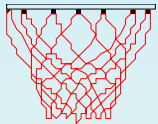
✔   * Cost OK

FitFocus Demo   Shoot baskets

1. Select * "by Type"|Sports, sort by Energy

    * add "Basketball, shooting baskets", 1 hr

    * delete "catch"

Note: only 2 activity groups

2. Analysis: Rainbow show improvement

    * Endurance Analysis: time & energy low, one activity is "moderate", heart rate not in range

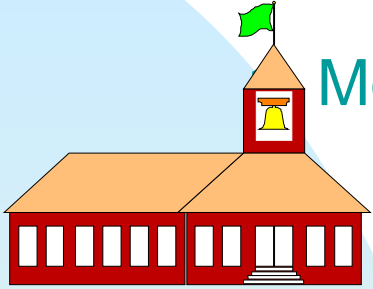   * Benefits Analysis: disease protection better but still less than 70% of possible risk reduction

    * Cost OK

FitFocus Demo   Walk to class

Modify * delete "walk dog"

* add "walk to class", 20 min each way,

5 days per week

✗ Note: only 2 activity groups

2. Analysis: Rainbow shows improvement

✗ ✗ * Endurance Analysis: time & energy low, all activities "moderate", heart rate not in range

✗ * Benefits Analysis: disease protection better than 70% of possible risk reduction in many cases

✔✔ * Cost excellent: reduce bus/drive cost

FitFocus Demo   Start to run

1. Modify * add "run 10 min/mile"

        * 2 days per week for 1 mile

        * pulse 150 bpm assumed

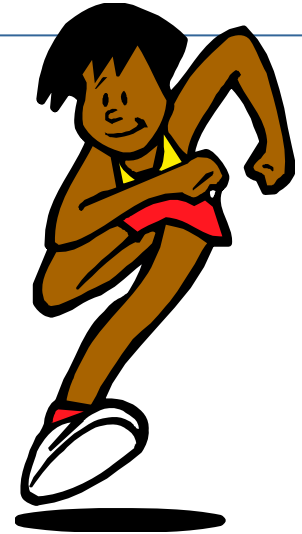Note: 3 activity groups

2. Analysis: Rainbow OK

* Endurance Analysis: time & energy OK, one activity "vigorous", heart rate in range

* Benefits Analysis: disease protection better than 70% of possible risk reduction in all cases (except Living Restrictions which is for the old)

* Cost excellent: reduce bus/drive cost

Contacts:

For educational software:
FitFocus-Software for Physical Activity Analysis
FoodFocus-Software for Nutrition Analysis

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     Web site: www.foodfocus.com
     or   www.fitfocus.com

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