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APPENDIX A

INFORMED CONSENT

I ________________________________

(full name of prospective participant)

have been informed of the procedures and requirements to participate in a research project dealing with the effect of Continuous Assistive-Passive Exercise (CAPE) on various physiological parameters, to be conducted at the Institute of Sport Research of the University of Pretoria.

I therefore declare that I willingly participate in the said research project at my own risk.

I declare hereby that I have not withheld any information that will exclude me from participating in an exercise programme, and am aware that I am entitled to withdraw from the study at any time if I should wish.

I hereby also grant the researcher permission to use my results for publication and/or presentation purposes, with my anonymity being ensured.

______________________________
Signature of prospective participant.

Tel: ____________________________(h) ____________________________(w)

Witness

1. ________________________________

2. ________________________________
METABO-MEAL PLAN

In general the subjects consumed normal everyday food, eating different amounts of food (calories) in three phases.

- **Low calorie phase**
  At 1000 calories per day, this phase was designed for maximum weight loss, while subjects consumed a nutritionally balanced diet. This menu was followed for two weeks.

- **Booster phase**
  After two weeks on the low calorie phase the subjects were required to switch to the booster menu plan with 300 more calories. This phase was designed to boost the metabolic rate. The added calories during the booster phase were made up by carbohydrates.

- **Re-entry phase**
  When subjects got to within two to three kg from their target goal-weight, they switched to the re-entry phase. Unless subjects gradually increased their calories they had the risk of gaining weight. This pre-maintenance period served to get the subject's metabolism ready for normal eating.

**I. LOW CALORIE PHASE**

**BREAKFAST EVERY DAY:**

- Cereal (3/4 cup)
  - Choose cereals that are low in sugar content, such as Special K, 40% Bran, Shredded-wheat, Wheaties, Raisin Bran, Oatmeal or Puffed Wheat.
- Milk (1/2 Cup)
  Low-Fat (2%) or skim milk
• Fruit: (1/2 Piece) - choice of Orange, Banana, Pear, Apple, Grapefruit or Peach

• Coffee or Tea
  Sugar substitute and/ or skim milk may be added if desired

**LUNCH : 1**

• Fruit Plate:
  - Strawberries (1/2cup)
  - Honeydew melon (1/4 cup) - Substitute fruit in season
  - Sweet melon (1/4 cup)
  - Cottage Cheese (1/4 cup of low-fat)
  - Lettuce (a few leaves under the fruit)

**LUNCH : 2**

• Egg (1 whole egg, any style) - if fried, use vegetable cooking spray
• Whole Wheat Bread (1 slice, toasted)
• Grapefruit (1/2)

**LUNCH : 3**

• Tuna Fish (90g, water packed)
• Lettuce (1/4 small head)
• Tomato (1/2 medium)
• Cucumber slices (10 slices)
• Diet salad dressing (2 tablespoons)
LUNCH : 4

- Tossed salad (Large salad bowl with lettuce, tomato, cucumber, radish mix)
- 2 tablespoons diet dressing
- Roll (1 small hard or Kaiser roll)
- 1 tablespoon diet margarine

LUNCH : 5

- Whole Tomato stuffed with chicken salad (2/3 cup)

LUNCH : 6

- Fruit Salad
  - Cottage Cheese (1/4 cup of low fat 50g)
  - Lettuce (1/4 head)
  - Orange (1/2-100g)
  - Apple (1/2 - 100g)
  - Grapes (3/4 cup)

LUNCH : 7

- Omelette: Egg whites (white of 3 eggs)
- Cottage Cheese (1/4 cup low-fat 50g)
- Onion (1/8 small 20g)
- Green Pepper (1/4 cup chopped 50g)
- Mushrooms (1/4 cup chopped 50g)

Note: Fry egg whites lightly in frying or omelette pan, using vegetable cooking spray. As egg whites set, add cottage cheese, onion, green pepper, and fold over omelette to cover filling.
DINNER : 1

- Baked chicken (150g or 2 breasts)
- Baked potato (1 medium, no butter)
- Vegetable: Choice of green beans, broccoli, asparagus (1/2 cup), strawberries (1/2 cup 80g), Vanilla yoghurt (1 tablespoon over fruit 12.5ml)

DINNER : 2

- Baked or broiled fish (180g of any type, no butter)
- Rice (white or brown, 1/2 cup)
- Vegetable: Choice of two - broccoli, carrots, green beans, cauliflower, asparagus, spinach (1/2 cup each)
- Orange slices (1/2 cup with dash of vanilla yoghurt if desired 100g)

DINNER : 3

- Broiled Lean Hamburger (180g)
- Egg noodles (1/2 cup, cooked)
- Vegetable: Choice of Green Beans, Broccoli, Asparagus (1/2 cup)

DINNER : 4

- Baked Chicken (150g or 2 breasts)
- New potatoes (1/2 cup or 2 or 3 small)
- Vegetable: Choice of spinach, green beans, broccoli (1/2 cup)
- Fruit: Choice of pineapple (slice) or strawberries/blueberries (1/2 cup)
DINNER : 5

- Broiled fish or shrimp (180g of any type)
- Corn on the cob (1 medium 1/2 cup)
- Small tossed salad (with 2 tablespoons diet dressing)
- Peach (1 whole, sliced and topped with 1 tablespoon plain or vanilla yoghurt)
  (Substitute fruit in season)

DINNER : 6

- Broiled steak (150g of any type, all visible fat removed)
- Baked potato (medium with 2 tablespoons of diet margarine)
- Vegetables: choice of broccoli, asparagus (1/2 cup)

DINNER : 7

- Spaghetti (1/2 cup cooked noodles)
- Meatless sauce (commercially prepared sauce)
- Parmesan cheese (sprinkled lightly over spaghetti 5-10g)
- Tossed salads (small bowl of lettuce, tomato, cucumber, radish Mix with 2 tablespoons diet dressing)
- Roll or bread (2 medium slices of Italian or French bread, with no butter or garlic)

METABO-MEAL : 1

- Cinnamon toast (2 slices of in-sliced wheat bread sprinkled lightly with cinnamon or mixture of cinnamon and artificial sweetener and toasted under the broiler)
METABO-MEAL :  2

- Small tossed salad (2 tablespoons diet dressing)
- Apple (1/2)

METABO-MEAL :  3

- Cereal (1/2 cup; choice of shredded wheat or 40% bran)
- Milk (1/2 cup low-fat or skim)
- Banana (1/2 - 50g)

METABO-MEAL :  4

- Cottage cheese (1/4 cup low-fat - 150g)
- Apple (1/2)

METABO-MEAL :  5

- Raw vegetable plate (mixture of 6 each of raw carrot sticks, celery, radishes, and cauliflower with diet dip - if desired)

METABO-MEAL :  6

- Sliced banana (1 whole, lightly sprinkled with cinnamon-artificial sweetener mixture and toasted under broiler)

METABO-MEAL :  7

- Fruit plate:
  - Apple (1/2 - 100g)
  - Banana (1/2 - 50g)
- Raisins (1 tablespoon - 10g)

Note: Slice and mix fruit together.

II. BOOSTER PHASE

BREAKFAST EVERY DAY:

- Cereal (3/4 cup)
  Choose cereals that are low in sugar content, such as Special K, 40% Bran, Oatmeal or Puffed Wheat.
- Milk (1/2 Cup)
  Low-Fat (2%) or skim milk only (125ml)
- Fruit: (1 whole) - choice of Orange, Banana, Pear, Apple, Grapefruit or Peach
- Coffee or Tea - sugar substitute and/or dash of low fat milk may be added if desired.

LUNCH : 1

- Tuna Fish Sandwich:
  - Whole wheat bread (2 slices)
  - Tuna (60g) water-packed canned tuna, mixed with 1 teaspoon mayonnaise
  - Lettuce
- Peach (1/2 small - 100g)

LUNCH : 2

- Chicken salad (90g chicken with teaspoon mayonnaise and 1 teaspoon chopped celery)
- Lettuce (a few leaves under chicken salad)
- Tomato (1/2 sliced)
LUNCH : 3

- Cottage cheese (1/3 cup of low-fat 45g)
- Sweet melon (1/4 cut in wedges)
- Strawberries (1/2 cup sliced)
- Lettuce (a few leaves under fruit and cottage cheese)

LUNCH : 4

- Eggs: (2 any style, if fried use vegetable cooking spray)
- Whole wheat bread, toasted (1 slice)
- Grapefruit (1/2)

LUNCH : 5

- Tossed salad (large salad bowl with lettuce, tomato, cucumber, radish, green pepper and carrot, mixed together with 3 tablespoons diet dressing)
- Fruit: Choice of apple or pear (120g)

LUNCH : 6

- Open-faced grilled cheese and tomato sandwich (2 slices of white or whole wheat bread, each topped with slices of tomato and low-fat (diet) cheese and grilled lightly under broiler)

LUNCH : 7

- Egg salad sandwich: Rye or whole wheat bread (2 slices)
- Egg salad: (1 whole egg, chopped with 1 tablespoon mayonnaise)
- Strawberries (1/2 cup - substitute fruit in season)
DINNER : 1

- Cornish hen (approximately 150g of meat)
- New potatoes (1/2 cup or 2-3 small 100g)
- Vegetables: Choice of carrots, green beans, broccoli, asparagus (1/2 cup -125 ml)
- Strawberries or blueberries (1/2 cup, topped with a tablespoon vanilla yoghurt) or fruit in season.

DINNER : 2

- Baked or broiled fish (180g of any type, no butter)
- Baked potato (1 medium, no butter 100g)
- Vegetable: Choice of two - broccoli, carrots, green beans, cauliflower, asparagus, spinach (1/2 cup each 250 ml)
- Apple-raisin mix (1/2 apple, diced mixed with 1 tablespoon raisins - 10g)

DINNER : 3

- Roast lamb or veal (150g all visible fat removed)
- Baked potato (1 medium 100g with 1 teaspoon diet margarine)
- Vegetable: Choice of Green Beans, Broccoli, Asparagus (1/2 cup)

DINNER : 4

- Spaghetti (1 cup cooked noodles)
- 250 ml Meatless sauce (5g commercially prepared sauce)
- Parmesan Cheese (10ml) sprinkled lightly over spaghetti
- Bread (2 medium slices of Italian or French bread, with 1 tablespoon diet margarine)
DINNER : 5

- Broiled fish or shrimp (200g of any type with fish or shrimp sauce)
- Rice (white or brown 1 cup - 250ml)
- Vegetables: Choice of two- broccoli, carrots, green beans, cauliflower, asparagus, spinach (1/2 cup each)
- Orange slices (1/2 cup with one tablespoon vanilla or lemon yoghurt)

DINNER : 6

- Roast beef (150g)
- Baked potato (1 medium no butter)
- Vegetables: choice of broccoli, baby marrow or asparagus (1/2 cup - 125ml)
- Toasted salad (small bowl of lettuce, onions, tomato, cucumber and radishes mixed with 2 tablespoons diet dressing)

DINNER : 7

- Turkey or Chicken (150g)
- Rice (white or brown 1/2 cup - 125ml)
- Vegetable: Choice of two - spinach, green beans, broccoli, carrots, asparagus, cauliflower (1/2 cup each)
- Fruit: choice of orange, apple, peach, pear (1/2 - 100g)

METABO-MEAL : 1

- English muffin (1 whole, toasted and topped with 1 tablespoon diet margarine)
METABO-MEAL : 2

- Popcorn (4 cups of popped popcorn with 1 tablespoon diet margarine, no salt)

METABO-MEAL : 3

- Raw vegetable plate (mixture of raw carrot sticks, celery, cauliflower, radishes)
- Cream Crackers (6 unsalted)

METABO-MEAL : 4

- Fruit: choice of two - banana, orange, pear, apple, grapefruit, peach

METABO-MEAL : 5

- Whole wheat bread roll (with 1/2 teaspoon cream cheese)

METABO-MEAL : 6

- Cereal: Choice of shredded wheat or 40% bran (1/2 cup - 125ml)
- Milk (1/2 cup low-fat or skim - 125ml)
- Banana (1 whole - 100g)

METABO-MEAL : 7

Repeat your favourite Metabo-meal from the Booster Menus.
III. RE-ENTRY PHASE

BREAKFAST EVERY DAY:

- Fruit juice (1/2 cup): choice of unsweetened or fresh grapefruit, orange, apricot or prune juice
- Cereal (3/4 cup): choose of 40% Bran, Allbran, Raisin Bran or other high fibre cereal.
- Milk (1/2 Cup)
  Low-Fat or skim milk only (125ml)
- Fruit: (1 whole) - choice of Orange, Banana, Pear, Grapefruit, Peach or lemon

LUNCH: 1

- Chicken salad sandwich: chicken salad (90g diced chicken mixed with 1 tablespoon mayonnaise)
  - Whole wheat bread (2 pieces, thin sliced)
  - Lettuce (1 or 3 leaves on sandwich)
- Pear 1/2 - 120g

LUNCH: 2

- Hamburger: Hamburger roll (1 whole), beef patty (90g of broiled lean beef), topped with
  1/2 tablespoon mayonnaise or 2 tablespoons tomato sauce
  - Lettuce (1 or 2 leaves)
  - Tomato (120g)
LUNCH : 3

- Cottage cheese (1/3 cup of low-fat 45g)
- Sweet melon* (120g)
- Strawberries (1/2 cup sliced - 120g)
- Lettuce (2 or 3 leaves)

*or fruit in season

LUNCH : 4

- Omelette - (2 - Egg omelette filled with tomatoes, peppers, onions and cheddar cheese)
- Bread or Roll (2 pieces, with 2 tablespoons diet margarine)

LUNCH : 5

- Tuna Fish sandwich: tuna (60g with 1 tablespoon mayonnaise)
  - Bran bread (2 slices)
  - Lettuce (1 or 2 leaves)
  - Tomato (2 slices)
- Peach (1 whole - 120g)

LUNCH : 6

- Large Salad: (large salad bowl) with lettuce, tomato, onion, carrots, pepper, radishes, diced chicken or turkey and croutons, topped with 2 tablespoons salad dressing.

LUNCH : 7

- Open-faced grilled cheese and tomato sandwich (2 slices of whole wheat or rye bread, each topped with slices of tomato and diet cheese, grilled lightly under broiler)
- Fruit: Choice of apple, orange, pear (1/2 - 100g)
DINNER : 1

- Baked or boiled fish, shrimp, crab or lobster meat (180g)
- Tossed salad (small bowl of lettuce, tomato, cucumber, onion, radish mixture with 2 tablespoons salad dressing)
- Sweet potato (1 whole with 1/2 teaspoon diet margarine)
- Vegetable: Choice of carrots, green beans, broccoli, asparagus, spinach (1/2 cup, topped with 1 tablespoon vanilla or lemon yoghurt)

DINNER : 2

- Macaroni and cheese (1 cup - 250ml) asparagus spears (4) 
tomato (1 whole, grilled under broiler with tarragon or grill - 120g)

DINNER : 3

- Steak (150g any type, broiled, with all visible fat removed)
- Baked potato (1 whole, with 1 tablespoon diet margarine)
- Vegetable: choice of corn, peas, beans (1/2 cup), spinach, salad (small bowl of raw spinach, onions, radishes, cucumbers and carrots with 2 tablespoons diet salad dressing)

DINNER : 4

- Baked chicken (150g or 2 breasts)
- New potatoes (1/2 cup or 2 to 3 small - 100g)
- Vegetable: Choice of carrots, asparagus, spinach, green beans (1 cup)
- Baked apple (1 whole, cut in half and topped with cinnamon and sugar substitute, baked for 20 to 30 minutes at 35F - 180C)
DINNER : 5

- Baked or broiled fish (180g of any type with fish or shrimp sauce)
- Rice (white or brown 1 cup topped with 1 tablespoon of diet margarine)
- Vegetables: Choice of corn, peas, beans (1 cup - 250ml)
- Orange slices (1 cup - 120g)

DINNER : 6

- Roast beef, lamb or veal (150g all visible fat removed)
- Baked potato (1 whole with 2 tablespoons sour cream)
- Vegetables: choice of asparagus, green beans, beets, carrots, broccoli, spinach (1 cup)
- Bread or roll (2 pieces, no butter or margarine)

DINNER : 7

- Spaghetti (2 cups cooked noodles)
- Meatless sauce (180ml commercially prepared sauce)
- Parmesan cheese sprinkled lightly over spaghetti - 30g
- Bread (2 medium slices of Italian or French bread, with 1 tablespoon diet margarine)

METABO-MEAL : 1

- English muffin (1 whole, toasted and topped with 1 tablespoon margarine or 1 tablespoon jam or jelly)
- Grapes (1 cup) or seasonal fruit

METABO-MEAL : 2

- Cream Crackers (6)
- Milk (1 cup low - fat or skim)
METABO-MEAL : 3

- Whole wheat bread roll (1 whole with 2 tablespoons cream cheese)
- Fruit: Choice of orange, apple, pear (1 whole - 120g)

METABO-MEAL : 4

- Raw vegetable plate (mixture of 6 each of raw carrot sticks, celery, radishes and cauliflower)
- Melba toast (4 pieces with 2 tablespoons diet margarine)
- Juice: Choice of orange, apple, grapefruit, prune

METABO-MEAL : 5

- Yoghurt (250ml container of any fruit-flavoured yoghurt)

METABO-MEAL : 6

- Popcorn (4 cups of popped corn with 1 tablespoon diet margarine - no salt)
- Fruit: choice of apple, orange, pear, peach, melon (1 whole - 120g)

METABO-MEAL : 7

Repeat your favourite Metabo-meal from the Re-entry Menus.