

**MOBILIZING
A MINORITY COMMUNITY
TO REDUCE RISK FACTORS FOR
CARDIOVASCULAR DISEASE:**

AN EXERCISE-NUTRITION HANDBOOK



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Community Health Assessment and Promotion Project (CHAPP), Atlanta, Georgia

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FOREWARD

As the *Report of the Secretary's Task Force on Black and Minority Health* documents, there is a continuing disparity in the burden of illness and death experienced by Blacks and other minority Americans as compared with our population as a whole. The reasons for this disparity are still not clear. Many of the specific activities recommended by the Task Force have been or are being addressed. Due to the complex causes of these disparities in health status, there is still a great deal to be done. Increasing evidence suggests, for example, that health education at the community level can be effective in modifying individual behaviors. What has not been proven is that these community-oriented health promotion programs can significantly effect a reduction in overall mortality and morbidity in individuals, especially those citizens from low income, Black urban neighborhoods of the United States.

Under a cooperative agreement between the Emory University School of Medicine and the Centers for Disease Control, the Community Health Assessment and Promotion Project (CHAPP) was funded for three years to document the process undertaken to effect change in the modifiable risks or behaviors related to cardiovascular disease in citizens in a predominantly Black Atlanta community. During the past year, CHAPP has received additional support from the Kaiser Family Foundation. One of the unique elements of this project was to document change while working in concert with a committed community-focused coalition on a culturally-appropriate exercise-nutrition program. As a result, the program was able to document that participation rates in CHAPP activities were higher than any documented in the literature and that CHAPP participants lost weight, reduced their blood pressure, and developed positive attitudes toward a sustained exercise regime. One of the tangible products of this project is this document, *Mobilizing a Minority Community to Reduce Cardiovascular Risk Factors: An Exercise-Nutrition Handbook*.

This handbook, then, is organized to present behavioral and technical data on establishing, implementing, and evaluating an already successful and useful exercise-nutrition program in a user-friendly style. Reflecting these concerns, the chapters are divided into planning and implementing sections in addition to practical approaches already proven successful in solving day-to-day problems which might occur in establishing such a program. Specific instructions along with daily exercises and handouts are provided so as to permit quick and meaningful adaption to other groups and communities. Additional resources are appended including an article on Medical Clearance for Exercise, an informed consent form, and other practical data used by CHAPP.

Through this collaboration, we are pleased to be able to publish and disseminate this Handbook. Our aim is to encourage others to adopt similar programs and thereby contribute to the attainment of the *Objectives for the Nation*.

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HOW TO USE THIS HANDBOOK

The Community Health Assessment and Promotion Program (CHAPP) is a cooperative effort between Emory University and the Centers for Disease Control. One major project was the development and evaluation of an exercise/nutrition intervention for a black, low income population. The evaluation results showed that the program was very effective in reducing risk factors related to cardiovascular disease. This handbook is designed to help other similar communities to implement this program. Our program participants were between 120% and 250% of their recommended body weight. The evaluation results studied 18-59 year olds. However, older persons also participated in the intervention with apparently similar success.

I. Purpose of the Handbook

The purpose of this handbook is to guide minority communities in the development and implementation of a community-based exercise-nutrition program. The handbook provides information on how to carry out a 10-week intervention and provides suggested resources for each session of the program.

II. Structure of the Handbook

The handbook is divided into two major sections: the first section contains background information needed to carry out the program; the second section provides the curriculum and methodology for each session. You should follow the sections of this handbook in the order they are presented. Understanding and properly using subsequent sections often depends on concepts, results, or worksheets presented in previous sections. Worksheets are provided throughout this handbook. They can help a program participant see a point that is being made more graphically. Each worksheet contains instructions and is written so that it can be copied and used by anyone.

PLANNING FOR AN EXERCISE-NUTRITION PROGRAM-BACKGROUND INFORMATION

A community needs to follow a specific plan to implement a comprehensive exercise-nutrition program. The plan should address the following:

- Recruitment of Participants
- Preintervention Screening Protocol
- Staffing Requirements
- Facilities Based on Intervention Options
- Community Resources and Supports
- Evaluation Plan

I. Recruiting of Participants

In establishing a successful community health program, recruiting and maintaining interested individuals is of vital importance. The CHAPP program is located in a community human services center in association with a primary care Neighborhood Health Clinic.

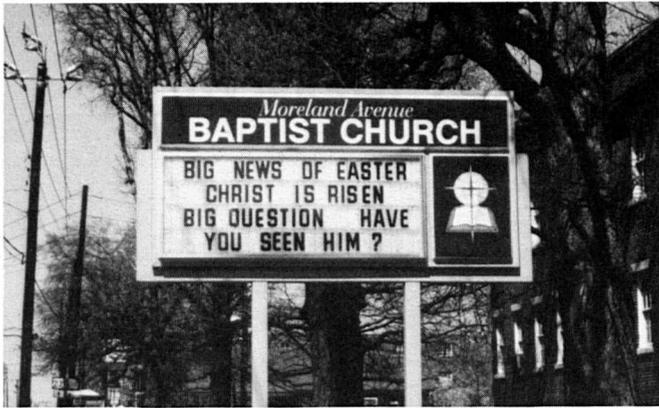
Recruitment efforts included:

- A. Friends—our most effective method of recruiting was contacts made through individuals who joined and then told others to come and join.
- B. Referrals from the clinic's physicians, nutritionists, physicians assistants, and nurse practitioners.
- C. Contacting other community service agencies in the center, such as the county health department, food stamps program office, dental services, and EOA-Economic Opportunity Atlanta.
- D. Media
 - local radio stations' public service announcements (PSA)

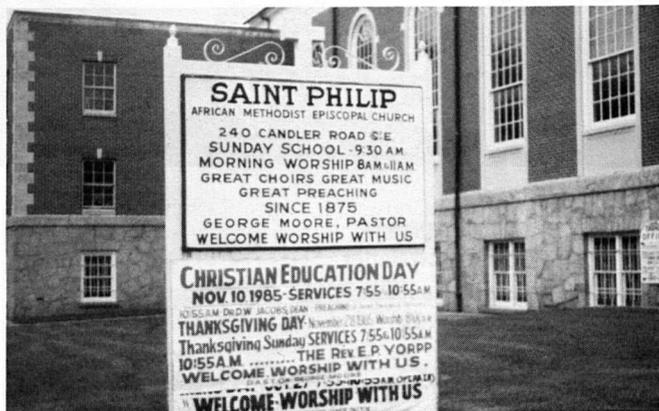


- local newspapers
- CHAPP newsletter
- flyers and posters
- mailed letters

- E. Interagency communication—CHAPP worked with other agencies and councils (e.g., American Red Cross, American Cancer Association, American Lung Association, YWCA, YMCA, the local Boys Club and other health centers) that also have similar goals in fulfilling the social, clinical, and health education needs of the target community .
- F. Health fairs—neighborhood-sponsored health fairs to promote the health interest of individuals.
- G. Civic Organizations—contacted local chapters of sororities and fraternities, area PTAs neighborhood planning councils.
- H. Community Leaders—coalition/board members participated and promoted the program.



- I. Churches—health leaders provided health lectures for church health programs. (We learned, for example, that in urban areas the church is no longer the center of community focus it once was. We obtained the best results by working with known health-conscious individuals in particular churches.)
- J. Pilot program—mini-fitness camp—preliminary exercise program with community leaders helping to initiate walking club and aerobic classes.



II. Preintervention Screening Protocol

In minority communities many residents experience multiple and sometimes undetected risk factors associated with cardiovascular disease. Therefore, it is extremely important to carefully screen potential participants.

The CHAPP program conducted an extensive interview and complete physical examination of each interested person and obtained medical clearance from a physician before the individual was allowed to participate in the exercise intervention.

Each person was asked to provide the following information or complete the necessary forms:

- Registration form (including name, address, telephone number, and the name of a person to contact in case of an emergency).
- Body measurements (bust or chest, waist, and hips).



- CHAPP Health Behavior Activity Questionnaire.
- Skin Fold Measurement* (Body Fat Composition).
- CANADIAN STEP TEST*
- Blood testing** (Cholesterol levels, glucose levels, etc.).
- Medical clearance from physician, listing medication and contraindications.***
- Other (personal contracts, personal goals or accomplishments).

III. Staff Requirements

The staff for the CHAPP program consists of a full-time PROJECT COORDINATOR, part-time (1/3 to 1/2 time) SECRETARY, three FITNESS INSTRUCTORS, a CHILD CARE PROVIDER, and from two-four VOLUNTEERS.

* This test was used to determine the individuals' body fat composition and cardiovascular fitness. Use the method that is most convenient and economical for you.

** Blood testing was very expensive and could be omitted unless you would like to provide this service at a minimal cost to the participant.

*** See article by Shepard, Appendix B.

The **COORDINATOR's** responsibilities:

Administrative duties; monitoring budget; preparing reports; attending conferences; project presentation; neighborhood, agency, and community staff meetings; data collection; direct personal contact with program participants; actively recruiting; enrolling and encouraging individuals; supervising staff and fitness program components; providing support to instructors and volunteers.

SECRETARIAL responsibilities:

Preparing forms; typing letters; filing; monitoring attendance; data entry, telephoning absent members.

FITNESS INSTRUCTORS responsibilities:

Provide the exercises (warm-up, aerobic, and cool down) for a low-impact aerobic program, a water exercise program, and a walking club.

The **CHILD CARE PROVIDER*** responsibilities:

Monitors the children of the program participants; assists with homework; provides the snack.

VOLUNTEERS are used to support the secretarial position, fitness instructors, and child care providers.



also encouraged to exercise independently of the program one or two additional days. They are also taught how to take their pulse rate.



A. Low Impact Aerobic/Dance

- 1) Warm-up includes stretching most major muscle groups.
- 2) Aerobics—variations of marching and walking in place, swinging the arms and lifting the legs. As a safety precaution, we stress no jumping for this particular group. Arms, thighs, legs, stomach, and buttock are all worked. The floor exercise for stomach and buttock are done with minor stress to the back. Participants are taught how to move safely.
- 3) Cool-down—slower movements and relaxation.

B. Water Exercises

This program is similar to the **LOW IMPACT AEROBIC DANCE**, but is done in the water. Such exercise proves to be easier for the heavier weight individuals.



IV. Types of Intervention

CHAPP participants are allowed to choose from three different exercising options depending on their own personal preference and availability of space. We recommend they select two programs for variety throughout the 10-week intervention. Participants are

* Because a major deterrent in low-income communities is the unavailability of child care services, providing child care is an important and integral component of the program.

- 1) Warm-up includes stretching the major muscle groups.
- 2) Aerobics—variation of marching and walking are also used. It is also easier to incorporate a few of the more traditional calisthenics because exercising is less stressful in the water. Arms, thighs, legs, stomach and buttock are all worked. The stomach and buttock work is done while holding the sides of the pool.
- 3) Cool-down—slower movements and relaxation.

C. Walking

The walking program is probably the most popular because it can be done anytime without a group, at no extra expense. This program helps individuals to walk 3 to 5 miles per week.

- 1) Warm-up includes stretching the major muscle groups.
- 2) Aerobics—speed walking and continuous walking motion using arms.
- 3) Cool-down—slower movements and final stretching.

V. Facilities for Interventions

The office space needed for CHAPP is minimal. A single office is donated by an agency in the Human Services Center. The space needed should include storage space for resource materials, copying, and access to a telephone.

The facility used for the exercise program should be well known and easily accessible to the majority of the targeted population. The size of the exercise space will depend on the number of participants and the options you wish to offer.

You will also need space for child care (preferably away from the exercising locations) but in a nearby area.

For our three options, we recommend space as follows:

- 1) Low-impact Aerobics—one large room

that allows for free movement and flexibility.

- 2) Water exercise—swimming pool with stairs for access to and from the pool.
- 3) Walking—generally done outside; during the winter months done in an indoor gymnasium or large room.

VI. Resources/Community Support

The 10-week exercise/nutrition program is offered for two hours twice a week. The first hour of each evening is the educational segment.

On **Tuesday evenings** the program starts with nutrition. A nutritionist often provides short lectures. We have used various speakers for the nutrition program, including a nutritionist from the County Extension Service. Dieticians discuss model diet plans, and experts provide individual consultations to the participants to train individual community residents (peer nutrition counselors). The participants were responsive to these individuals and indicated a sincere interest in learning more. This service is normally provided free. Other nutritional resources included volunteer nutritionists dealing with specific areas of diet and weight control.

During the second educational session of each week, **Thursday evenings**, the topics dealt with specific interests of the group. We identified agencies that could serve as community resources by providing free lectures. These agencies included the following:

American Heart Association
 American Cancer Society
 Local Diabetes Association
 Local Community College
 Specialized Private Physicians
 Childrens' Foundations and Associations
 Local Health Departments-
 American Red Cross
 Fashion Consultants
 Social Service Agencies

VII. Evaluation

The community participants are allowed to evaluate

every component of the exercise and nutrition program. The results have produced changes in program delivery. The individual health lectures and nutrition topics are all evaluated as well as the instructors.

Results of the program's effectiveness are measured by weight loss, decrease in blood pressure, attendance records, and increased interest to continue in a similar maintenance program.



VIII. LESSONS LEARNED AND PARTICIPATION STRATEGIES

Lessons Learned

Coalition

This group of individuals should include actual members of the targeted community. Social service agencies and organizations that are working in the targeted area should also be represented.

Coalition members should be involved with every aspect of program development.

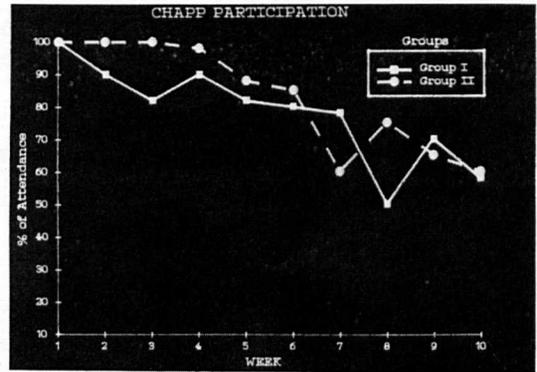
Listen attentively to the committee's suggestions.

Staff Recruitment

Staff should preferably be members of the targeted group. If necessary, train individuals from the community; they are accepted more readily. Ask for volunteers for specific duties.

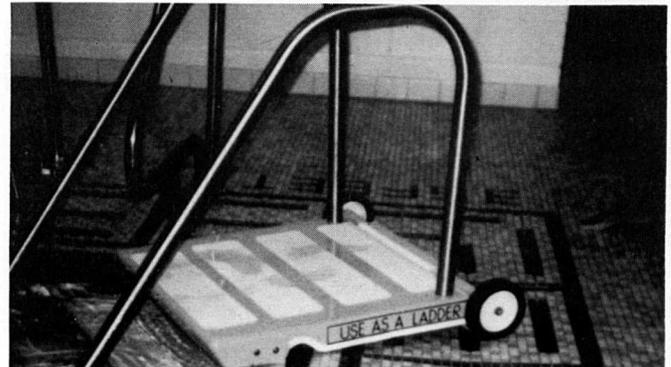
Facility

Use a facility that is easily accessible to the targeted group. If possible, select one that can be accessed by public transportation. Use of a neighborhood facility helps create a sense of ownership.



Participation Strategies

- 1) Remain in close contact with participants.
 - Call participants when they are absent; inquire about the reason for their absence; try to make accommodations if possible.
 - Visit with and invite family members to help encourage the participants to exercise and eat nutritional foods.



- 2) Respond to Their Suggestions

- We constantly assessed the program, asking the participants what could be done to better serve them. Their response resulted in changing our nutrition format from a lecture to a participant discussion group lead by a nutritionist. Recipe taste testing followed the discussion.
- We provided escorts for those afraid to walk at night and flash lights were provided.
- We made steps to accommodate those with difficulty entering and leaving the pool.

- We provided blinds for the windows of the large exercise room to eliminate exposure from the outside.
- We found alternate facilities when necessary.

3) Rewards or incentives

We gave participants incentives for progress made in the areas of good attendance, weight loss and overall performance. Incentives were used to encourage continued participation in the program and to strive to reach their goals. Some of the incentives given were: T-shirts, towels, sweat suits/shirts, make-up, head-bands and wrist-bands, certificates, plaques, tickets to professional games and other activities, exercise bikes, mini trampoline, exercise mats, pedometers, portable headset stereos, etc.



4) Customized Exercise Program

We designed a very low impact program because our group was at high risk. This helped to eliminate the fear of the participant hurting him/herself.

5) Invite Variety of Speakers

We invited various speakers to lead discussion on topics that were of interest to the participants. Speakers included:

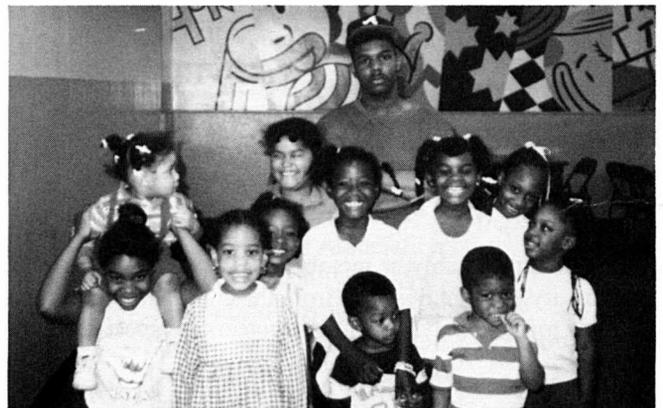
- make-up specialist
- country extension agency
- American Heart Association
- American Cancer Society



6) Self-Monitoring

Participants kept logs of their own individual program. For example, they kept food diaries, pulse rate data, and contracts that contained the goals they set for themselves.

- 7) We asked the project staff and the community coalition to participate in the intervention.
- 8) Keep program cost free or at a minimal charge.
- 9) Provide child care or alternative activities for children.
- 10) Provide group activities as well as individual consultation.



INCENTIVES



Donations

- National Linen Service - towels
- Archie's Sporting Goods - sports accessories
- Community Leader - wildlife posters
- A la' Card - spray of balloons
- Avon Products - complimentary cosmetics and collector items
- March of Dimes - caps
- Economic Opportunity Atlanta - novelty items

Purchased

- Atlanta Symphony tickets
- kitchen items
- Alvin Ailey Dance Theater tickets
- exercise bicycles
- T-shirts
- stereo cassette player
- sweatshirts
- recorder
- swim caps
- mini-trampoline
- exercise mat
- sweatbands

IMPLEMENTING AN EXERCISE-NUTRITION PROGRAM - CURRICULUM AND METHODOLOGY

I. Reminders

The program classes are convened twice a week for two-hour sessions. In addition, each participant and family/support member should be contacted by telephone or home visits at least twice a week.

Telephone calls and home visits should include the following:

- Reminding participants of the upcoming session.
- Asking if there are any problems or concerns about maintaining participation.
- Ascertaining why a participant did not attend a session and encouraging return to program.
- Checking on participant's progress and (home) enabling or detracting factors.
- Arranging transportation or child care, if desired.

During the week, participants have a choice of two 40-minute exercising sessions/classes. The sessions offered consist of the following:

1. A **walking club** in which participants briskly walk a course of neighborhood streets or a track for 40-45 minutes in a group (Offered twice each week.)

2. **low impact slimnastics** for 40-45 minutes; taught by a certified, trained instructor who resides in the community. Participants have volunteer partners for individual encouragement and pacing during the exercises. Exercises include swinging the body, raising the arms and legs, bending, stretching, etc. (Offered twice each week.)
3. **swimming and water exercises** for 40-45 minutes. A series of graduated leg, arm, and whole body movements to be performed in shallow water of an indoor pool. This session/class was taught by a water instructor at the YMCA. (Offered twice each week.)

Participants must commit to a choice of two exercising options and maintain commitment to those options throughout the 10-week program.

A nutritional component of the intervention program is to be provided each week, for 10 weeks, 40-45 minutes before the exercise sessions. All participants and their family members/support group members should attend the nutrition classes/activities. Each nutrition session focuses on a particular theme relevant to the cultural context of the community. Each session will provide specific nutritional information or attitude enhancement points, or both. Most sessions should include a "hands-on" activity.

II. Intervention - Objectives and Protocols

For each of the exercise options, these specific objectives have been developed:

A. Objectives for Walking Exercise

Objective 1. Each participant will learn how to measure and record pre-session and post-session pulse rates and will be made aware of how these rates relate to fitness (Week 1).

Objective 2. Each participant will walk for 20-40 minutes. A specified walking course will be designated with resting intervals identified to take pulse rates. Distance will vary based on each individual's level of fitness (Week 1-3).

Objective 3. Each participant will learn a series of flexibility/warm-up and cool-down exercises to be done before and after each walking session. These warm-up and cool-down session will last 5-10 minutes each.

Objective 4. To have every participant increase walking by 5 minutes per session (Weeks 4-10).

Objective 5. To make each participant aware of the physiological benefits of walking, that is cardiovascular improvement, high blood pressure reduction, weight control, blood circulation. (Weeks 4-10)

Objectives 4 and 5 are specifically addressed at the end of each walking session during a brief health education wrap-up session held by the walking group leader. Also, during this session, each member will check his/her own pulse rate.

PROTOCOL FOR WALKING EXERCISE WEEKS 1-10

Weeks 1 and 2

Warm-Up/Flexibility Exercises	5-10 Minutes
Walking/Breathing Exercises	15-20 --- Minutes
Cool-Down Exercises	5-10 Minutes

Weeks 3 - 5

Warm-Up/Flexibility Exercises	5- 7 Minutes
Walking Breathing Exercises	20-25 Minutes
Cool-Down Exercises	5- 7 Minutes

Week 6 - 10

Warm-Up/Flexibility Exercises	7-10 Minutes
Walking Breathing Exercises	25-30 Minutes
Cool-Down Exercises	7-10 Minutes

B. Protocol and Objectives for Water Exercise

Class begins with Warm-Up Phase of the program, which includes stretching, walking, and other moderate exercises. Class then moves to the training portion of the program. This phase includes muscular endurance exercises and cardiovascular activity. During this phase emphasis will be on maintaining proper exercise intensity and taking pulse rates at regular intervals. The last component of the exercise program is the Cool-Down Phase, which includes stretching, walking, and relaxation.

Weeks 1 and 2

Warm-Up Period	4 Exercises	10 Minutes
Training Program	6 Exercises	15 Minutes
Cool-Down Period	4 Exercises	10 Minutes

OBJECTIVES:

- 1) Orientation to program.
 - 2) Learn 14 exercises correctly in 35-minute period.
 - 3) Learn to take pulse rate and identify target heart rate.
-
-

Weeks 3 - 7

Warm-Up Period	8 Exercises	8 Minutes
Training Program	10 Exercises	25 Minutes
Cool-Down Period	8 Exercises	9 Minutes

OBJECTIVES:

- 1) Learn 12 new exercises correctly—26 total learned exercises.
 - 2) Improve endurance by increasing exercise time and number of exercises.
 - 3) Improve balance, coordination, flexibility, and intensity.
-
-

Weeks 8 - 11

Warm-Up Period	10 Exercises	10 Minutes
Training Program	15 Exercises	30 Minutes
Cool-Down Period	10 Exercises	10 Minutes

OBJECTIVES:

- 1) Exercise 50 minutes with 35 exercises.
 - 2) Increase intensity, number of repetitions of muscular strength, and endurance training. Cardiorespiratory training exercises are increased accordingly.
-
-

C. Protocol and Objectives for Aerobic Exercise

WARM-UP: (5 minutes)

The purpose of warm-up is to heat the body slowly in preparation for stretching and aerobic activity. Warm-up is achieved through full-body, rhythmic movement.



STRETCH: (3-4 minutes)

The purpose of preaerobic stretching is to extend the joints through their normal range of motion in a slow, controlled manner before beginning more vigorous activity. This process decreases the chance of injury.

AEROBICS: (10-40 minutes) (increasing incrementally as class progresses).

The aerobic exercises are designed to get the individual to 50%-60% of functional capacity (as monitored by heart rate) with minimal strain on the joints. All exercises performed are low-impact (one foot flat on the floor at all times) and involve rhythmic movements of large muscle groups. The main objective when working with an obese population is to maximize caloric expenditure while minimizing overexertion or injury.

Protocol for progressive exercise is as follows:

Week	Minutes of Exercise Intensity (50-60%)	Minutes of Exercise Below Intensity	Total Repetitions	Minutes
1	2	1	7	21
2	2	1	8	24
3	2	1	9	27
4	2	1	10	30
5	2	1	11	33
6	2	1	12	36
7	3	1	9	36
8	3	1	9.5	38
9	3	1	9.5	38
10	3	1	9.5	38

COOL-DOWN/TONING: (5-20 minutes)

The purpose is to bring heart rates back to resting levels and to strengthen posture muscles. Exercises are performed standing until heart rates are below 120 beats per minute (BPM) and the abdominals, legs, and upper back are strengthened. Floor exercises will be very low level, concentrating on the abdominals.

FINAL STRETCH: (5-10 minutes)

The purpose is to increase flexibility and to bring heart rates and blood pressure below original resting levels. Time permitting, progressive relaxation exercises are performed as well as static stretching.

D. Protocol and Objectives for Nutrition

To provide a nutrition education process using complete participation of members with emphasis on behavior modification methods designed to help members identify and understand the significance of nutrition on health and their responsibility to personal health and the health of their loved ones. They will determine specific nutritional needs and discover ways to overcome obstacles that interfere with these needs.

Weight-loss is emphasized but a specific weight-loss “diet” is not prescribed. Instead, members are asked to modify their current eating practices and use nutritional methods to work toward a balanced diet to complement their ongoing exercise program.

We have included the outlined nutrition programs that CHAPP used during the 10 week intervention. These are all modifiable and should be modified according to the interest and needs of the participants. For example if the group consist of young mothers interested in motivating their young children to eat healthful, nutritious snacks, a program should be included on this topic. Include as many group interaction activities as possible.

WEEK 1

I. MAKING GOOD NUTRITION A HABIT (PEP-TALK AND EXPECTATIONS)



- A. Overweight doesn't happen overnight.
- B. Retraining yourself: Set goals for yourself to change old habits and form new habits.
- C. Tips to get started: Choose one of the activities listed below. Lead the discussion involving as many of the participants as possible. Limit discussion to 15-20 minutes.

Activity 1:

Ask the group “What triggers you to eat?” When suggestions are given, write them down and discuss them.

Activity 2:

Ask the group to divide into small groups of four people. Each group should discuss a particularly bad eating habit that they have in common. Each group will then report their discussions to the entire group.

D. Written Exercises

Exercise 1 - During the next week tell participants to write down foods they chose to eat and why. Individuals should use the Daily foods they chose to eat for any three days. All information will be discussed during WEEK IV (5-10 minutes).

Exercise 2 - Ask participants to complete the form “What Does Food Mean To You.” Discuss their responses with the group.

- E. Pretest for next week's session: Cholesterol/fat/salt in your diet (on the list provided state which of these are high or low).
- F. Food Preparation
Prepare one of the recipes given out for this week to be tasted next week by the participants. Make copies of the recipes.

WHAT DOES IT MEAN TO YOU

DATE _____

CHAPP DAILY FOOD DIARY

NOT HUNGRY = 0
HUNGRY = 1
VERY HUNGRY = 2

	WHAT DID YOU DRINK? (HOW MUCH)	FOOD GROUP?	WHAT TIME DID YOU EAT?	WHERE DID YOU EAT?	WHO DID YOU EAT WITH?	WHEN YOU STARTED TO EAT HOW HUNGRY WERE YOU?
M O R N I N G						
A F T E R N O O N						
E V E N I N G						

PRETEST - SALT, SUGAR, FAT, CHOLESTROL

Next to each food listed write whether it is high in salt, sugar, fat, or cholesterol. Some foods may be high in more than one.

- | | | |
|-----|-------------------|--|
| 1. | pickles | |
| 2. | sausage | |
| 3. | olives | |
| 4. | margarine | |
| 5. | hot dogs | |
| 6. | bacon | |
| 7. | canned vegetables | |
| 8. | peanut butter | |
| 9. | french fries | |
| 10. | soft drinks | |
| 11. | barbecue sauce | |
| 12. | liver | |
| 13. | sweetbreads | |
| 14. | cheese spread | |
| 15. | biscuits | |
| 16. | shrimp | |
| 17. | mayonnaise | |
| 18. | eggs | |
| 19. | salt pork | |
| 20. | fried chicken | |

WEEK 1

SWEET POTATO CASSEROLE

Makes 6 servings

Calories: 150 per serving

4 medium sweet potatoes
1 tablespoon unsalted margarine
1/4 cup orange juice

2 tablespoons chopped walnuts
1/4 teaspoon nutmeg

Cook whole sweet potatoes in boiling water 25-30 minutes or until tender. Peel and mash. Add remaining ingredients. Mix thoroughly. Place in a lightly oiled 1 quart casserole. Bake uncovered in 375 F oven for 25 minutes.

SCALLOPED SWEET POTATOES

Makes 6 Servings

Calories: 185 per serving

1/4 cup sugar
1/2 teaspoon cinnamon
3 raw, medium sweet potatoes,
peeled, sliced 1/4-inch thick

2 medium apples, sliced
3 tablespoons unsalted margarine

Mix sugar and cinnamon together. Place a layer of sweet potatoes in a lightly oiled 1 1/2 quart casserole. Add a layer of apples, sprinkle with cinnamon-sugar mixture, and dot with margarine. Repeat layers. Cover and bake in 350 F oven for 1 hour.

WEEK 2

II. THE CRIPPLING QUARTET: SALT/SUGAR/FAT/CHOLESTEROL

- A. Health Statistics: Give national, state, and local community statistics on CVD/HBP, diabetes, obesity
- B. Let's look at what your'e eating. Discuss the quartet, need for them in your diet, the amount generally consumed, and the amount that is recommended.
- C. Demonstration:

Activity 1 - Leader will have food items and next to each item will be displayed the amounts of salt/sugar/lard corresponding to each. Also display the amount an average person consumes in a day/year.

Activity 2 - Small groups will each be given list of six snacks in varying degrees of salt/sugar/fat/cholesterol content. The groups will confer and decide which snack is lowest in content of salt/sugar/fat/cholesterol.

- D. Group Discussion:

What can you do about reducing your intake of the Crippling Quartet?

1. Know dangerous foods (go over pretest)
2. Know hidden sources
3. Reduction the easy way
 - a. seasoning without salt
 - b. replacing fats
 - c. cut down on sugar
4. High-cholesterol foods

- E. Evaluation:

Correctly identify all foods high in salt/sugar/fat/cholesterol from list of 20 items.

- F. Food Preparation:

Prepare the Cool Vegetable Dip recipe and experiment with different vegetables.

EVALUATION: WEEK 2

Next to each food listed write whether it is high in salt, sugar, fat, or cholesterol. Some foods may be high in more than one.

1. pickles _____
2. sausage _____
3. olives _____
4. margarine _____
5. hot dogs _____
6. bacon _____
7. canned vegetables _____
8. peanut butter _____
9. french fries _____
10. soft drinks _____
11. barbecue sauce _____
12. liver _____
13. sweetbreads _____
14. cheese spread _____
15. biscuits _____
16. shrimp _____
17. mayonnaise _____
18. eggs _____
19. salt pork _____
20. fried chicken _____

ANSWERS - 1. salt; 2. fat, cholesterol; 3. salt, fat; 4. salt; 5. cholesterol, salt, fat; 6. fat, cholesterol, salt; 7. salt; 8. salt; 9. fat; 10. sugar; 11. sugar; 12. liver, cholesterol; 13. fat, cholesterol, sugar; 14. cholesterol, salt, fat; 15. fat; 16. cholesterol; 17. fat; 18. cholesterol; 19. fat, cholesterol, salt; 20. fat.

SEASONING WITHOUT SODIUM

Soups:	bay leaves, chervil, French tarragon, marjoram, parsley, savory, rosemary
Poultry:	garlic, oregano, rosemary, savory, sage
Beef:	bay leaves, chives, cloves, cumin, garlic, hot pepper, marjoram, rosemary, savory
Lamb:	garlic, marjoram, oregano, rosemary, thyme (make little slits in lamb to be roasted and insert herbs)
Pork:	coriander, cumin, garlic, ginger, hot pepper, pepper, sage, savory, thyme
Cheese:	basil, chervil, chives, curry, dill, fennel, garlic powder, marjoram, oregano, parsley, sage, thyme
Fish:	chervil, dill, fennel, tarragon, garlic, parsley, thyme
Fruit:	anise, cinnamon, coriander, cloves, ginger, lemon verbena, mint, lemon juice
Bread:	caraway, marjoram, oregano, poppy seed, rosemary, thyme
Vegetables:	basil, chervil, chives, dill, tarragon, marjoram, mint, parsley, pepper, thyme
Salads:	basil, onion powder, chives, tarragon, garlic powder, parsley, lemon juice

(These are best used fresh or added to salad dressing. Otherwise, use herb vinegars for extra flavor.)

TIPS FOR REDUCING SODIUM IN FOOD PREPARATION

- Add herbs and spices instead of salt to vegetables, meats, poultry, and fish
- Cook a day ahead when making soups, stews, sauces, slaws, and salads, and don't use salt. This preparation gives the natural flavors of the food time to blend.
- Baste meats with wine, seasoned vinegar, or lemon juice instead of sauces such as soy sauce, or teriyaki sauce.
- Cook rice, noodles, pasta, hot cereals, and vegetables in unsalted water.
- Try gradually reducing the table salt in your favorite recipes.

Peppy Herb

1 1/2 tablespoons thyme
1 1/2 tablespoons marjoram
1 tablespoon rosemary leaves
2 teaspoons ground sage
1 teaspoon ground black pepper

Saltless Surprise

2 teaspoons garlic powder
1 teaspoon basil
1 teaspoon oregano
1 teaspoon powdered lemon rind
* add rice to prevent caking.

HOMEWORK FOR WEEK 2

Check any foods high in sodium

___ ham
___ corned beef
___ sausage
___ canned vegetables
___ cheese spread
___ pickles
___ olives
___ soy sauce
___ peanut butter
___ hot dogs
___ salt pork
___ bacon

Check any foods high in sugar

___ candy
___ soft drinks
___ barbecue sauce
___ maple syrup
___ frozen sweetened strawberries
___ dried dates

Check any foods high in fat

___ fried chicken
___ french fries
___ sausage
___ mayonnaise
___ nuts
___ margarine
___ olives
___ biscuits
___ peanut butter
___ hot dogs
___ salt pork
___ bacon

Check any foods high in cholesterol

___ kidney
___ liver
___ sweet breads
___ eggs
___ liver
___ shrimp

In all categories, all food should be checked.

COOL VEGETABLE DIP

12 oz low fat cottage cheese
8 oz plain low fat yogurt
3 Tbsp. freeze-dried chives
2 spring onions, chopped
1 carrot, finely chopped
1/2 green pepper (bell), finely chopped
1/4 tsp. dry mustard
pepper
dash garlic powder

Beat cottage cheese till smooth. Add all ingredients except yogurt; then fold in yogurt. Serve with fresh vegetables or whole wheat crackers.

FLAVOR SUGGESTIONS For Salt Restricted and Weight Reduction Diets

BEEF: bay leaf, dry mustard, green pepper, sage, marjoram, mushrooms, nutmeg, onion, pepper, thyme, garlic powder, onion powder

CHICKEN: mushrooms, paprika, parsley, poultry seasoning, thyme, sage, black pepper, lemon juice, onion powder, garlic powder

LAMB: garlic, mint, rosemary, curry

PORK: onion, garlic, sage

VEAL: bay leaf, curry, ginger, marjoram, oregano

FISH: bay leaf, curry, dry mustard, green pepper, lemon juice, Marjoram, mushrooms, paprika, basil; bake with bay leaf, pepper, and onion or broil with lemon juice.

EGGS: curry, dry mustard, green pepper,

FOR ALL VEGETABLES USE 1/2 TSP. HERB TO 3 CUPS COOKED VEGETABLES

ASPARAGUS: lemon juice

CORN: green pepper, tomato

CARROTS: cinnamon, nutmeg, thyme, rosemary

GREEN BEANS: marjoram, lemon juice, nutmeg, dill seed; eat cold with vinegar and onion

PEAS: onion, mint, mushrooms, parsley, green pepper

POTATOES: onion, mace, green pepper, parsley; bake and season with chives

SWEET POTATOES: cinnamon or nutmeg, apples

SQUASH: ginger, mace, onion

TOMATOES: basil, marjoram, onion

BROCCOLI: lemon juice

CABBAGE: mustard (dry), dill seed, vinegar, pepper sauce, lemon juice

CAULIFLOWER: nutmeg, paprika, lemon juice

COLLARDS: vinegar

USE ONION POWDER OR GARLIC POWDER INSTEAD OF ONION SALT OR GARLIC SALT

TRY THESE TIPS FOR DECREASING FAT, CHOLESTEROL, SALT, AND SUGAR

<u>PRODUCT</u>	<u>SUBSTITUTION</u>	<u>REASON</u>
-whole milk	-skim milk	reduction of fat, cholesterol, and calories
-sweetened/fruited -whole milk yogurt	-low fat plain yogurt with fresh fruit	reduction of sugar, calories
-sweetened cereals -french fries	-unsweetened cereals -baked potato	reduction of fat and sugar
-highly seasoned soft-cooked vegetables	-fresh or steamed vegetables	reduction of fat and sodium
-bologna/salami/hotdogs	-turkey/lean roast beef	reduction of fat, cholesterol, and sodium
-fried chicken/ country fried steak /fried fish	-bake, grill, or broil poultry, beef, and fish	reduction of fat and sodium
-cake/candy/cookies	-fruit	reduction of sugar, fat, and calories
-sour cream	-plain yogurt	reduction of fat
-olives	-celery stick	reduction of fat and sodium

FAT AND CHOLESTEROL REDUCTION TIPS

Remove visible fat from meats and skin from poultry.

Broil, roast, or bake on a rack to allow fat to drip into pan. Skim fat from stews and soups (refrigerate and let fat congeal on top or place in freezer for 20 minutes and skim).

Instead of frying in oil, use nonstick pans or vegetable oil sprays, or stir-fry in water instead of oil. Limit batter-fried foods.

Substitute plain low fat yogurt for sourcream or mayonnaise in dips and dressings.

Substitute skim milk for whole milk in baking sauces.

WHERE THE SODIUM IS

Content in Milligrams

APPLE 2	APPLESAUCE 1 cup 6	APPLE PIE 1/8 frozen 208
BREAD 1 slice, white 114	POUND CAKE 1 slice 171	ENGLISH MUFFIN 293
BUTTER 1 tablespoon, unsalted 2	BUTTER 1 tablespoon, salted 116	MARGARINE 1 tablespoon 140
CHICKEN 1/2 breast 69	CHICKEN PIE frozen 907	CHICKEN fast food 2,243
CORN 1	CORN FLAKES 1 cup 256	CANNED CORN 1 cup 384
CUCUMBER 7 slices 2	CUCUMBER with salad dressing 234	DILL PICKLE 928
GRAPES 10, seedless 1	GRAPE JELLY 1 tablespoon 3	WHITE WINE 4 oz., domestic 19
LEMON 1	SOY SAUCE 1 tablespoon 1,029	SALT 1 teaspoon 1,938
MILK 1 cup 122	DRY MILK 1/2 cup 322	COTTAGE CHEESE 4 oz. 457
PORK 3 oz. 59	BACON 4 slices 548	HAM 3 oz. 1,114
POTATO 5	POTATO CHIPS 10 200	INSTANT MASHED 1 cup 485
STEAK 3 oz. 55	JUMBO BURGER Fast food 990	MEAT LOAF frozen dinner 1,304
TOMATO 14	TOMATO SOUP 1 cup 932	TOMATO SAUCE 1 cup 1,498
TUNA 3 oz. 50	CANNED TUNA 3 oz. 384	TUNA POT PIE Frozen 715
WATER 8 oz. tap 12	CLUB SODA 8 oz. 39	ANTACID* In water 564

*Sodium bicarbonate

WEEK 3

III. LOSING WEIGHT SENSIBLY

A. What makes a balanced diet?

1. The four food groups (handout is given on four food groups)
2. The Dietary Guidelines
 - a. Eat a variety of foods
 - b. Reduce salt, sugar, fat, and cholesterol consumption (discussed Week 2)
 - c. Maintain desirable weight
 - d. Eat adequate starch and fiber
 - e. If you drink alcohol, do so in moderation
3. Portion sizes (Pass around food models to show portion sizes - number of ounces)
4. Crash/fad diets
 - a. Harmful to health
 - b. May cause immediate weight loss/weight regained quickly
 - c. Members discuss various fad diets they have gone on

B. The importance of exercise to your weight-loss program

Sample recipe to taste: Slim Tuna Salad with "Less Bread" (whole wheat bread and low salt crackers)

C. Evaluation

Use attached evaluation form for week 3.

D. Resources available to provide assistance

- Local County Extension Service
- Local Dietetic Association
- Human Nutrition Information Service
- Public Health Department

NUTRITION

<u>FOOD GROUP</u>	<u>SERVINGS PER DAY</u>
Dairy Products	2
Fruits and Vegetables	4
Breads and Cereals	3-4
Meats and Proteins	2

1. Use the above Chart as a guideline
2. Do Your Best to Eat This Number of Servings Per Day

Slim Tuna Salad

One small can tuna (packed in water)
Three tablespoons chopped celery
One tablespoon chopped green bell pepper
One tablespoon chopped onion
One tablespoon grated mozzarella cheese
One teaspoon vinegar (any kind)
1/4 cup plain, low fat yogurt

Drain tuna; combine all ingredients; season with pepper and garlic powder. Makes three servings (1/4) cup.

Each serving: 62 calories

EVALUATION: Week 3

Circle the Good Food Choices

soft drinks

fruit juice

sausage biscuit

whole wheat bread

fresh fruit

plain yogurt

pork roast

cucumbers

wheat crackers

skim milk

banana

canned fruit

TV dinners

potato chips

pork chops (fried)

baked potato

sour cream

pickles

french fries

white bread

banana pudding

whole milk

wheat crackers, skim milk, bananas, baked potato

**Canned fruit is a good choice if in its own juice.*

WEEK 4

IV. POOR EATING HABITS AND HOW TO CHANGE THEM

A. What influences your present eating habits?

1. family
2. work
3. environment

B. What you can do about poor eating habits.

1. set small goals; deal with each bad habit gradually
2. do not mix eating with any other activity
3. take smaller portion sizes and eat slower
4. don't serve family style
5. keep foods out of sight
6. limit purchases of "junk" snack foods and convenience foods
7. find other methods that work for you
8. encourage members to exchange phone numbers for an "eating hot line"
9. getting through the holidays

C. Food record review from Week 1. Additional food diaries given.

D. Food preparation

Prepare popcorn with no butter and season with Mrs. Dash or a similar no salt seasoning.

E. How to be successful in your diet

Have members pair off and discuss one poor eating habit that contributes to their weight problem and ways to deal with it. Use the handout.

HOW TO BE SUCCESSFUL IN YOUR DIET

Set a realistic goal. You are more likely to follow your diet if your expectations are not too high.

Anticipate plateaus. They happen to everyone.

Don't be discouraged if you are not able to follow your diet on a holiday. Plan ahead when you are going to overeat for a specific holiday and simply start your diet the next day.

Eat slowly. Leave utensils on plate while chewing. If you eat fast, you are more likely to consume more food.

Always eat three meals a day. Don't skip any meals. Your body will function better in terms of losing weight when the calories are evenly distributed throughout the day.

Eat only at mealtimes. Don't eat just because you see food or you have nothing else to do. You are more likely to follow your diet if you eat only at specific times.

Make eating a "pure activity." Avoid all other activities at mealtime. If you eat while watching TV, you will not realize how much you are eating.

If your eating habits depend on your feelings (sad or depressed), learn to use alternative (noneating) ways to cope with emotions: call a friend, take a bath, or pursue a hobby. Keep in mind that overeating will not resolve the problem.

Self-statements such as "Nothing works for me," "I am a failure," or "I will always be a fat slob" are never going to help anyone. Always encourage yourself by having a positive attitude: "I know I can do it; I have accomplished tougher things before."

Learn to be assertive. If someone insists on you having a piece of cake, simply say "No thank you, I am trying to lose weight." You certainly will not offend a friend by refusing food that is not in your diet.

Keep in mind that to lose weight and maintain your loss you need to make a commitment. You need to change your eating habits to be completely successful.

WEEK 5

V. EATING WISELY: WHEN TO EAT WHAT

A. Group Discussion

1. Ask members to relate how they handled “eating episodes” successfully.
2. Discuss with the group the importance of a good breakfast and the need for a midmorning nutritious snack.
3. Discuss with the group the need to eat 3 to 4 small meals a day plus good snacks.
 - a. Prevent binge eating
 - b. Prevent starvation of body tissues resulting in loss of water, energy, and adequate nutrients.

B. Benefits Of Exercise

Use exercise handout to inform participants how it increases your metabolism and burns more calories.

C. Food Preparation

Prepare Broccoli-cheese casserole and Low-fat onion dip. Serve dip with fresh cut vegetables.

BENEFITS OF EXERCISE

1. Improves the health of the heart and the circulatory system.
2. Decreases the build up of extra cholesterol and reduces any fat already in the blood.
3. Decreases the percentage of body fat.
4. Reduces the occurrence of depression; helps promote a better self-image; Reduces tension.
5. Increases muscle tone and endurance; exercise helps improve one's appearance because muscles look more firm and smooth!
6. Increases agility and coordination.
7. With exercise, one may find oneself being more alert and productive during the day; one may be able to sleep better at night.
8. Increases skin tone and promotes a healthy glow.
9. Increases flexibility.
10. Improved blood circulation; also helps reduce blood pressure.
11. Decreases the risk of osteoporosis. When one is not active, calcium tends to leak out of the bones.
12. Increases basal metabolic rate. Become a **"BETTER BUTTER BURNER"**!
13. Those who burn off 2000 calories per week with exercise have a lesser chance of developing heart disease than those who do not exercise.
14. On the worksite: Absenteeism is reduced up to 20% and productivity is increased.

"Exercise does not have to become a burden and does not mean you'll have to alter your lifestyle—make exercise fun and something you can adhere to and not make excuses to avoid...."

DR. JEAN MAYER, President of Tufts University
Boston, Massachusetts

"Health results from a harmony between food and exercise."

HIPPOCRATES, Ancient Greek Physician

WEEK 5

BROCCOLI - CHEESE CASSEROLE

2 pounds broccoli (you may also use eggplant, yellow squash, or zucchini)
2 eggs, beaten
16 ounces low fat cottage cheese
1 cup cooked rice (try long grain brown rice - you'll love it!)
2 onions, finely chopped
1 teaspoon dry mustard
1 teaspoon marjoram
2-3 tablespoons chives
pepper
1/4 cup grated Parmesan cheese

Wash broccoli. Remove part of stems but do not pare. (When using eggplant, remove skin.)
Cut into 1/4-1/2 inch pieces. Heat 1 inch of water to boiling. Add broccoli and cover. Reduce heat and steam/simmer till tender. (10-15 min.) Drain.

Heat oven to 350°. Mix egg, cottage cheese, rice, onion, mustard, marjoram, and chives. Season with pepper. Place half the broccoli in baking pan or covered casserole and top with rice mixture. Repeat layers and sprinkle with Parmesan cheese. Bake for 45 min.

Makes 4 servings. (1 serving=1/2 meat, 1 1/2 milk, 1 vegetable, 1 bread exchange and approximately 250 calories.)

LOW FAT ONION DIP

1 envelope onion soup mix
16 ounces plain, low fat yogurt

Try it at your next party- it has 1/2 the calories of onion soup mix made with sour cream!

WEEK 6

VI. THE SMART SHOPPER:

A. Guest Lecturer

Obtain a consumer expert, dietician, or nutritionist to provide a lecture on menu planning and shopping skills.

1. Menu planning: an introduction
2. Benefits of menu planning
 - a. save time
 - b. save money
 - c. save calories
3. Shopping skills
 - a. how to be a smart shopper and save time and money
 - b. label reading: how and why

B. Food Preparation

Prepare Lemon-barbecue chicken and Chicken-broccoli skillet and serve with shredded lettuce.

HOW SMART SHOPPERS CAN USE NUTRITION LABELING

Compare labels to select foods that round out the nutrients you need daily.

Use nutrition labels to help count calories.

Use nutrition labels to help avoid restricted foods.

Read labels on new foods to see what nutrients they supply.

TO SAVE MONEY:

Use labels to compare the cost per serving of similar foods.

Read labels to make sure you get the most for your food dollar.

Read labels to find less costly substitutes for more expensive foods.

WEEK 6

CHICKEN BROCCOLI SKILLET

A colorful main dish that's quick!

10-ounce package frozen broccoli (or 10 ounces fresh)
8-ounce chicken breasts, skinned, boned, and cut into 1/2 inch strips
1/4 cup chopped onions
2 tablespoons diet margarine
1 teaspoon lemon juice
1/4 teaspoon dried thyme, crushed
salt and pepper
3 medium tomatoes, cut into wedges

Thaw the frozen broccoli. Season chicken strips with salt and pepper.

Cook chicken and onion quickly, so that they sizzle in the hot diet margarine till chicken is just done.

Stir in the broccoli, lemon juice, thyme, salt, and pepper.

Cook covered in skillet or wok for 6 minutes. Add tomato wedges.

Cook covered 3 to 4 minutes more. Makes 4 servings of 1 1/4 cup each.

Each serving equals 2 1/2 lean meat exchanges, 2 vegetables, 1/2 fat exchange.

LEMON BARBECUED CHICKEN

Can be cooked on charcoal grill or baked in oven at 350° until tender.

2 1/2 pounds frying chicken, quartered, skinned
dash paprika/dash cayenne pepper
1/4 cup lemon juice
1/4 cup honey
1 tablespoon sesame seeds, toasted in oven

4 Servings/255 calories per serving

Season chicken lightly with paprika and pepper. Combine lemon juice and honey, mixing thoroughly; set aside 2-3 tsp... Place chicken on broiler rack and broil 4-5 inches from heat for 15 minutes, basting occasionally with lemon-honey. Turn pieces over and broil 15 minutes or until tender. Add sesame seeds to remaining lemon-honey mixture and spoon over chicken just before serving.

WEEK 7

VII. MENU PLANNING: THE BENEFITS OF ADVANCED PREPARATION

- A. What makes a good menu? Group discussion of what is most important to the members.
 - 1. taste
 - 2. nutrition
 - 3. cost
 - 4. convenience

- B. Methods and tips for menu planning
- C. Storage of foods
- D. Critique a menu from a local restaurant for:
 - 1. taste
 - 2. nutrition
 - 3. cost
 - 4. convenience

- E. Food record review from Week 4.

- F. Food Preparation
 - 1. Prepare Savory Southern Dressing and Fat Free Gravy.
 - 2. Ask members to bring in traditional or ethnic recipes, or both, on Thursday to be remodeled for next week's nutrition session.

SAVORY SOUTHERN DRESSING

1 small pan cornbread made with skim milk
6-8 dried slices of diet bread
3-4 slices of dried wheat bread
2 medium onions
2-3 large outside strips of celery
1 teaspoon sage
1 egg plus 2 egg whites
1-2 cups turkey or chicken stock (fat removed)(or bouillon cubes may be used)
(To defat, boil meat in enough water to cover; cool and skim off hardened fat to remove fat.)

Crumble bread into large bowl. Cook onion and celery and stock until tender. Add seasoning to bread and begin adding all vegetables and enough stock until damp but not wet. Stir egg and whites into dressing. Press mixture into pan, coat with vegetable oil (or shape into pones) and bake at 375 degrees until firm or knife comes out clean.

1 cup = 250 calories.

FAT FREE GRAVY

1 cup turkey or chicken stock (fat removed)
1/4 cup skim milk
2 tablespoons flour or cornstarch
1/2 cup minced onion (optional)
1/2 cup minced mushrooms or celery (optional) season to taste

Heat the stock (fat removed) in a saucepan. If including vegetables, add and simmer till tender. Combine flour/cornstarch and skim milk. Add gradually to stock; simmer, stirring until mixture thickens slightly.

1 cup = 1 bread exchange or 70 calories

WEEK 8

VIII. REMODELING OLD MENUS/RECIPES

- A. Groups meet to discuss ways to make menus/recipes more nutritious and low-cal. Plan menus.
- B. Discussion of ethnic foods and their importance.
- C. Review of recipes that were remodeled from Thursday.
- D. Food Preparation

“DON’T STARVE, THEN STUFF. IF YOU CAN LEARN TO EAT SENSIBLY MOST OF THE TIME, YOU’LL BE A LOT HAPPIER AND HEALTHIER!”

“INSIDE EVERY HEAVY PERSON THERE IS A THIN PERSON TRYING DESPERATELY TO GET OUT.....GIVE HIM/HER SOME HELP!”

HOLIDAY FRUIT AND SPICE CAKE

2 cups enriched self-rising flour
1 teaspoon ground cinnamon
1 teaspoon ground cloves
1/2 cup reduced calorie margarine
1/4 cup granulated sugar
1 teaspoon baking soda
1 1/2 cups unsweetened applesauce
1/3 cup raisins

Sift flour, cinnamon, and cloves together in a bowl and set aside. Preheat oven to 350. In a medium bowl, cream margarine. Add sugar and stir to combine. Stir baking powder into applesauce. Add to margarine mixture and stir to combine.

Add sifted ingredients to applesauce mixture. Using an electric mixer, beat at medium speed until thoroughly combined, about 30 seconds. Fold in raisins.

Spray an 8x8x2 inch baking pan with nonstick cooking spray. Pour cake into pan and bake 40-45 minutes. Remove cake from pan and transfer to a wire rack to cool.

Serves 12 at 147 calories a serving.

CRANBERRY APPLESAUCE

1 pound fresh or frozen cranberries
1/2 can applesauce (low or no sugar)
10 packets of Equal (NutraSweet)

Combine all ingredients except Equal (sugar substitute). Cook until cranberries are soft. Cool. Stir in Equal until dissolved.

Approximately 120 calories per recipe.

HOLIDAY PUNCH

2 packages strawberry or cherry unsweetened drink mix
2 cups club soda
2 cups low-cal ginger ale
1 quart water
Add a sugar substitute to taste

EGGNOG

1 cup milk
1 egg
1/4 teaspoon vanilla extract
Dash of nutmeg
Add a sugar substitute to taste
One serving equals one milk exchange and one meat exchange/45 calories

IX. INFORMAL LESSON PLAN

Discuss behavioral methods of weight loss and importance of exercise. Behavioral methods discussed should include these:

- Chew thoroughly
- Avoid distractions while eating
- Make meals last at least 20 minutes
- Place utensils down between bites
- Use small plates
- Eat small servings
- Eat in only one place

THOUSAND ISLAND DRESSING

Makes 1 cup

Calories: 55 per tablespoon

1/2 cup mayonnaise
1/4 teaspoon onion powder
1/2 cup unsalted chili sauce
Dash pepper
1 tablespoon finely chopped green pepper
1 hard-cooked egg white, finely chopped (optional)

Combine all ingredients. Mix well and chill.

VINEGARETTE DRESSING

Makes 1 cup

Calories: 55 per tablespoon

1 cup oil
1/4 teaspoon dry mustard
2 tablespoons lemon juice
1/8 teaspoon garlic powder
2 tablespoons tarragon vinegar
1 hard-cooked egg white finely chopped (optional)
2 teaspoons chopped fresh parsley or 1/2 teaspoon parsley flakes
1 tablespoon low fat yogurt (optional)
1/2 teaspoon pepper

Place all ingredients in a jar and shake vigorously. Chill.
Serve with cooked or raw chilled vegetables or with fresh tomato slices.

LEMON-POPPY SEED DRESSING

Makes 1 cup

Calories: 55 per tablespoon

1/2 cup frozen lemonade concentrate (undiluted)
2 tablespoons oil
1 teaspoon poppy seeds
1/3 cup honey

Combine all ingredients in a small mixing bowl. Beat with rotary beater until smooth. Serve over fruit salad.

WEEK 10

X. DINING OUT; WHAT TO LOOK FOR, WHAT TO AVOID

- A. Fast foods: How good are they?
Discuss the Quick Eating Guide.
- B. Making the best choice
(On a sample menu have participants suggest the best choices and say why.)
- C. Cafeteria line: Have participants go through a model cafeteria line and help each other pick proper choices.

PEPPER STEAK

2 pound flank steak, scored
Freshly ground pepper
1 tablespoon vegetable oil
2 medium onions, chopped (about 1 cup)
1 can (10 1/2 ounces) unsalted beef broth*
3 tablespoons flour
1/2 pound mushrooms, trimmed and sliced
3 medium green peppers, cut into strips (1/4 inch wide)
3 tomatoes
1 teaspoon snipped parsley

Cut meat crosswise into 1/2 inch strips. Season with pepper. Heat oil in large skillet; brown meat in oil over medium heat. Push meat to one section; add onion. Cook and stir until onion is tender, about 3 minutes.

Mix broth and flour until smooth; stir into meat mixture. Heat to boiling, stirring constantly. Boil and stir 1 minute. Reduce heat; cover tightly and simmer 30 minutes.

Stir in mushrooms and green pepper. Cover and simmer 5 minutes. Cut each tomato into eighths and place on meat mixture. Cover and cook over low heat just until tomatoes are heated through, about 2 minutes. Sprinkle with parsley.

8 servings.

1 serving = 1 meat, 1 1/2 vegetable - 290 calories

*Unsalted beef broth can be made by dissolving two unsalted beef bouillon cubes in 1 1/2 cups boiling water.

QUICK EATING GUIDE

Here are calories, fats, sodium, and sugar content of some fast-food favorites from The Fast-Food Guide. The *Gloom rating*, indicating the food's overall nutritional value, is derived from a formula that was used to analyze nutrients, fats, sodium, and sugar content. In general, the lower the Gloom rating, the better the food is for you.

Company/product	Calories	Fat (tsp.)	Sodium (mg.)	<i>Gloom rating</i>
<u>CHICKEN</u>				
Roy Rogers drumstick	117	2	162	8
Kentucky Fried Chicken original recipe drumstick	147	2	269	11
Church's fried chicken leg	147	2	286	12
KFC drumstick (extra crispy)	173	3	346	15
Wendy's chicken sandwich, multi-grain bun	320	2	500	15
Burger King Chicken Tenders (6)	204	2	636	16
McDonald's chicken McNuggets (6)	323	5	512	26
KFC Kentucky Nuggets (6)	276	4	840	27
Arthur Treacher's Chicken Sandwich	413	4	708	28
Carl's Jr. chicken sandwich	450	3	1,380	28
Dairy Queen chicken sandwich, fried	670	9	870	53
Burger King chicken sandwich	688	9	1,423	58
<u>HAMBURGERS</u>				
McDonald's hamburger	263	3	506	16
Burger King hamburger	275	3	509	17
Wendy's hamburger, white bun	350	4	410	22
Hardee's hamburger	276	3	589	22
Jack in Box cheeseburger	323	3	749	22
McDonald's cheeseburger	318	4	743	23
Dairy Queen Single with cheese	410	5	790	28
McDonald's Quarter Pounder	427	5	718	31
Roy Rogers hamburger	456	6	495	34
Burger King double cheeseburger	478	6	827	35
Hardee's Big Deluxe	503	7	903	38
McDonald's Big Mac	570	8	979	45
Dairy Queen Double with cheese	650	8	980	46
Burger King Whopper	626	9	842	47
Wendy's Double Cheeseburger, white bun	630	9	835	48
Dairy Queen Triple Hamburger	710	10	690	51
McDonald's McD.L.T.	680	10	1,030	54
Roy Rogers RR Bar Burger	611	9	1,826	57
Burger King Double Beef Whopper with cheese	970	15	1,206	76
Wendy's Triple Cheeseburger	1,040	15	1,848	85

Company/product	Fat Calories	Sodium (tsp.)	(mg.)	<i>Gloom rating</i>
<u>FRENCH FRIES</u>				
Arby's	211	2	30	9
Dairy Queen	200	2	115	11
McDonald's	220	3	109	13
Long John Silver's	247	3	6	14
KFC Kentucky Fries	268	3	81	15
Church's	256	3	*	15
Jack in the Box	221	3	164	15
Arthur Treacher's Chips	276	3	39	15
Hardee's	239	3	180	15
Wendy's	280	3	95	16
Roy Rogers	268	3	165	16
Burger King	227	3	160	17
Carl's Jr.	250	3	460	21

*Information not available

Company/product	Calories	Fat (tsp.)	Sodium (mg.)	Sugar	<i>Gloom rating</i>
<u>SHAKE AND MALTS</u>					
Jack in the Box, strawberry	320	2	240	9	13
McDonald's, vanilla	352	2	201	10	15
McDonald's, strawberry	362	2	207	10	15
Arby's, vanilla	295	2	245	8	16
Burger King, vanilla	321	2	205	9	16
Roy Rogers, vanilla	306	2	282	9	17
McDonald's, chocolate	383	2	300	11	17
Burger King, chocolate	374	3	225	9	18
Dairy Queen chocolate malt	520	3	180	12	21

PREINTERVENTION SCHEDULE OF EVENTS

A. Selection

- | | |
|--|-----------------------------------|
| 1. 4-6 weeks before intervention offered | Selection of Participant |
| 2. Set date for end of enrollment | Cutoff for first 10-week program |
| 3. Set date for second recruitment | Cutoff for second 10-week program |

B. Preintervention Orientation

- | | |
|-------------|---|
| 6:00 - 6:15 | Wait for Late Arrivals |
| 6:15 - 6:35 | Welcome and Orientation |
| 6:35 - 6:40 | Complete forms for registration, snack table |
| 6:40 - 6:45 | Water Exercise Orientation Instructor |
| 6:45 - 6:50 | Exercise/Music Orientation Instructor |
| 6:50 - 6:55 | Walking Club Orientation Instructor |
| 6:55 - 7:30 | Nutrition Orientation |
| 7:30 - 8:00 | Whole Group sign up for program/questions and answers transportation arrangements |

TYPICAL INTERVENTION SCHEDULE

Session 1

6:00 - 7:00

NUTRITION SESSION 1

7:00 - 8:00

EXERCISE SESSION 1

Exercise Group I -

Water Exercise

7:00 - 7:15

Warm-up Exercise and Learn Pulse Reading

7:15 - 7:30

Exercise Regimen and Check Peak Pulse Rate

7:30 - 7:45

Cool-down Exercise and Check Resting Pulse Rate

7:45 - 8:00

Record Sheet Completion and Question and Answer Period

Exercise Group II -

Walking Exercise

7:00 - 7:15

Warm-up Exercise and Learn Pulse Reading

7:15 - 7:30

Walking and Breathing/Check Peak Pulse Rate

7:30 - 7:45

Cool-down Exercise and Check Resting Pulse Rate

7:45 - 8:00

Record Sheet Completion and Question and Answer Period

Exercise Group III -

Fitness to Music

7:00 - 7:15

Warm-up Exercise and Learn Pulse Reading

7:15 - 7:30

Aerobic Exercise and Check Peak Pulse Rate

7:30 - 7:45

Cool-down Exercise and Check Resting Pulse Rate

7:45 - 8:00

Record Sheet Completion and Question and Answer Period

Session 2

6:00 - 7:00

Blood Pressure, Weight, and Invited Speaker

7:00 - 8:00

EXERCISE SESSION

Exercise Group I -

Water Exercise

7:00 - 7:10

Warm-up Exercise and Learn Pulse Reading

7:10 - 7:30

Exercise Regimen and Check Peak Pulse Rate

7:30 - 7:40

Cool-down Exercise and Check Resting Pulse Rate

7:40 - 7:50

Record Sheet Completion and Question and Answer
Period

7:50 - 8:00

Review of Homework

Exercise Group II -

Walking Exercise

7:00 - 7:10

Warm-up Exercise and Learn Pulse Reading

7:10 - 7:30

Walking and Breathing/Check Peak Pulse Rate

7:30 - 7:40

Cool-down Exercise and Check Resting Pulse Rate

7:40 - 7:50

Record Sheet Completion and Question and Answer
Period

7:50 - 8:00

Brief Review of Nutrition Homework

Exercise Group III -

Fitness to Music

7:00 - 7:10

Warm-up Exercise and Learn Pulse Reading

7:10 - 7:30

Aerobic Exercise and Check Peak Pulse Rate

7:30 - 7:40

Cool-down Exercise and Check Resting Pulse Rate

7:40 - 7:50

Record Sheet Completion and Question and Answer
Period

7:50 - 8:00

Brief Review of Nutrition Homework

LAST MEETING OF THE PROGRAM IS USED FOR THE AWARDS PROGRAM AND BANQUET.

SPECIALTY SESSIONS

1. American Heart Association - "How To Take Your Blood Pressure"
2. Film - Healthy Heart
3. Nutritional Counseling
4. State Extension Service Presentation on Nutrition
5. Make-up Class - Mary Kay Cosmetics
6. Injury Control
7. Dancing for the Elderly
8. Wardrobe and Fashion Analysis
9. Low-back Pain
10. American Cancer Society
11. Safety Classes, First Aid, CPR, American Red Cross

APPENDICES

EXERCISING

Basic Instructions:

- 1) Always maintain good posture (shoulders back and relaxed, abdominals tight, knees unlocked and standing upright). There should be a straight line from head to hips.
- 2) Avoid twisting or movements that will cause participant to lose balance.
- 3) Perform low-impact movements. Keep one foot on the floor at all times. Do not hop or bounce on one foot.
- 4) All movements should be controlled—not fast, uncontrolled, jerky movements.
- 5) Remember to breathe.

Stretching:

- 1) Body should be warmed up before beginning to exercise.
- 2) Never force a stretch or movement if it is uncomfortable.
- 3) Always support the back.
- 4) Do not bounce; move slow.
- 5) Don't hold your breath; remember to breathe.

Low-Impact Basic Aerobic Format

This format can be used for both land and water aerobics. Make adjustments for water aerobic by using the walls of the pool for floor exercises.

- A) **Warm-up (3-5 min.)** - The purpose is to heat the body slowly in preparation for stretching and aerobic activity. Full body, rhythmic movements.
Example: Walking briskly, swinging arms with very simple movements. Marching in place.
- B) **Stretching (5 min.)** - The purpose of stretching is to extend joints through their normal range of motion slowly and in a controlled manner. Stretching before participants began to move vigorously helps to decrease the chance of injury.
- C) **“Aerobics” (20-45 min.)** - Start very slowly. Using very basic steps. Move legs making very small marching movements. March forwards (1-2-3-4), backwards, step to right side, then left side. These moves can be varied, e.g., step forward (count 1-2-3-4), back, side (1-2-3-4), back.

Add arm movements as individuals master foot movements, clapping, elbows touching, straight arm clap, bending elbows, reaching for ceiling, completely circle arm, swing arms, bend arms swing.

Variations on marching: With right foot, step forward, back, forward, back; step backwards, forwards, backwards, forwards. Repeat with other leg. Alternate legs stepping forward then backwards.

- D) **Cool down (5 min.)** - Movements are slower; the heart rate is returning to preexercise levels. Final stretch and encourage participants to relax.

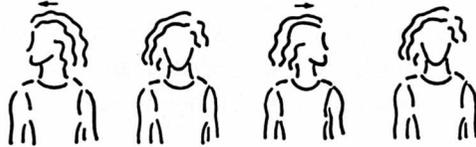
Warm-Up (5-10 min.) - Brisk Walking, Loosening the Muscles

Stretching (5-20 min.):

- 1) Standing with feet 1-2 feet apart, arms down and shoulders relaxed, look down, and then straight up (try to touch chest with chin). Repeat 4 times. In the same position, look right and then to the front. Repeat this motion 4 times. In the same position, look left and then to the front. Repeat this motion 4 times also, then switch and look right and then to the front. Repeat this motion 4 times also, then switch and look left and then to the front.
- 2) With feet in same position as in previous exercises, raise arms straight up, reaching for ceiling but keeping feet flat on floor. Reach-relax. Repeat 4 times. Alternate bending arm and reaching across chest using other arm to stretch further by pushing-hold then relax. Repeat 4 times. Change arms.
- 3) Circle shoulders backward. Repeat 4 times.
Circle shoulders forward. Repeat 4 times.
Circle, alternating shoulders backwards and forwards, 8 times each.
Lift shoulders up and hold, relax, then bring shoulders down, and hold. Repeat 4 times.
- 4a) With feet 2-3 feet apart, arms out to the side, lunge right, hold, and then lunge left and hold. Repeat 4 times. With one arm up and the other down, lunge right, hold, and then lunge left and hold. Repeat 4 times.
- 4b) With one foot in front of the other, feet 1-2 feet apart, lunge forward, hold, and then lunge backwards. Change legs. Repeat each set 4 times. Remember to keep foot that is back flat on the floor.
- 4c) Maintaining posture (one foot in front of other with feet 1-2 feet apart) and facing wall, place palms of hands on wall, keeping feet flat. Bend front knee back keeping leg straight, push wall, and hold. Change legs. Repeat 4 times with each leg.
- 4d) Keeping same position as above and bending elbows, lean into wall, straighten front leg, and flex front foot. Hold. Change legs. Repeat 4 times with each leg.

Low-Intensity Basic Exercises

①



②



③



④



Floor Work (20-45 min.)

Floor work strengthens abdominals, inner and outer thighs, and buttocks.

Abdominals

- 5) Laying flat on your back with knees bent, press your lower back to the floor, raising buttocks slightly. Tilt pelvic area. Repeat 8 times; relax and repeat 8 more times.

Curl Ups

- 6) Maintain same posture as in abdominals with arms to the side and remember to press lower back into floor. Keeping chin off chest, gently raise or curl-up. Repeat 8 times; relax and repeat 8 more times. Variations:

6a) - *Bringing knees into chest, make small lifts.

6b) - *Bring one knee up at a time.

*With feet hip's width apart, this exercise can be modified by curling up and pushing hand through legs. Repeat 8 times; relax and repeat 8 more times. As class advances add sets of eights.

6c) - *Put feet and knees together, hand under or at base of neck, make small lifts.
(Use abdominal muscles to lift, not neck.)

6d) - *Keeping same posture, use alternating arms to reach across body.

Outer Thigh

7a) Lie on side with both legs straight, extending upper arm in front of body to support spine, knees unlocked. Lift leg straight up, and then lower (do not drop) without touching lower leg. Use small lifts. Repeat 8 times; relax, and repeat 8 more times.

7b) From same posture, lift leg to position of small lifts, and from that position, lift higher using small lifts. Repeat 8 times; relax, and repeat 8 more times.

7c) Bend lower leg and repeat both exercises 8 times. Upper leg can also be brought to front and lifted straight up with foot flexed down.

7d) Lie on side with both knees bent and arm across body in front; lift both knee and ankle together straight up. Repeat 8 times, relax, straighten leg, and repeat 8 more times.

Keeping ankles together, lift knee. Repeat 8 times, relax, and straighten. Repeat in multiples of 8, relaxing between each set.

7e) Lying on back, with lower back pressed to floor, and one knee bent, lift leg straight up and lower to floor without touching floor. Change legs. Repeat in multiples of 8 on each leg.

Standing and using a chair back for support, lift one leg to side and lower it without touching floor.

FLOOR WORK
10-20 MIN.

Abdominals

5



6



6a



6b



6c



6d



Outer Thighs

7a



7b



7c



7d



7e

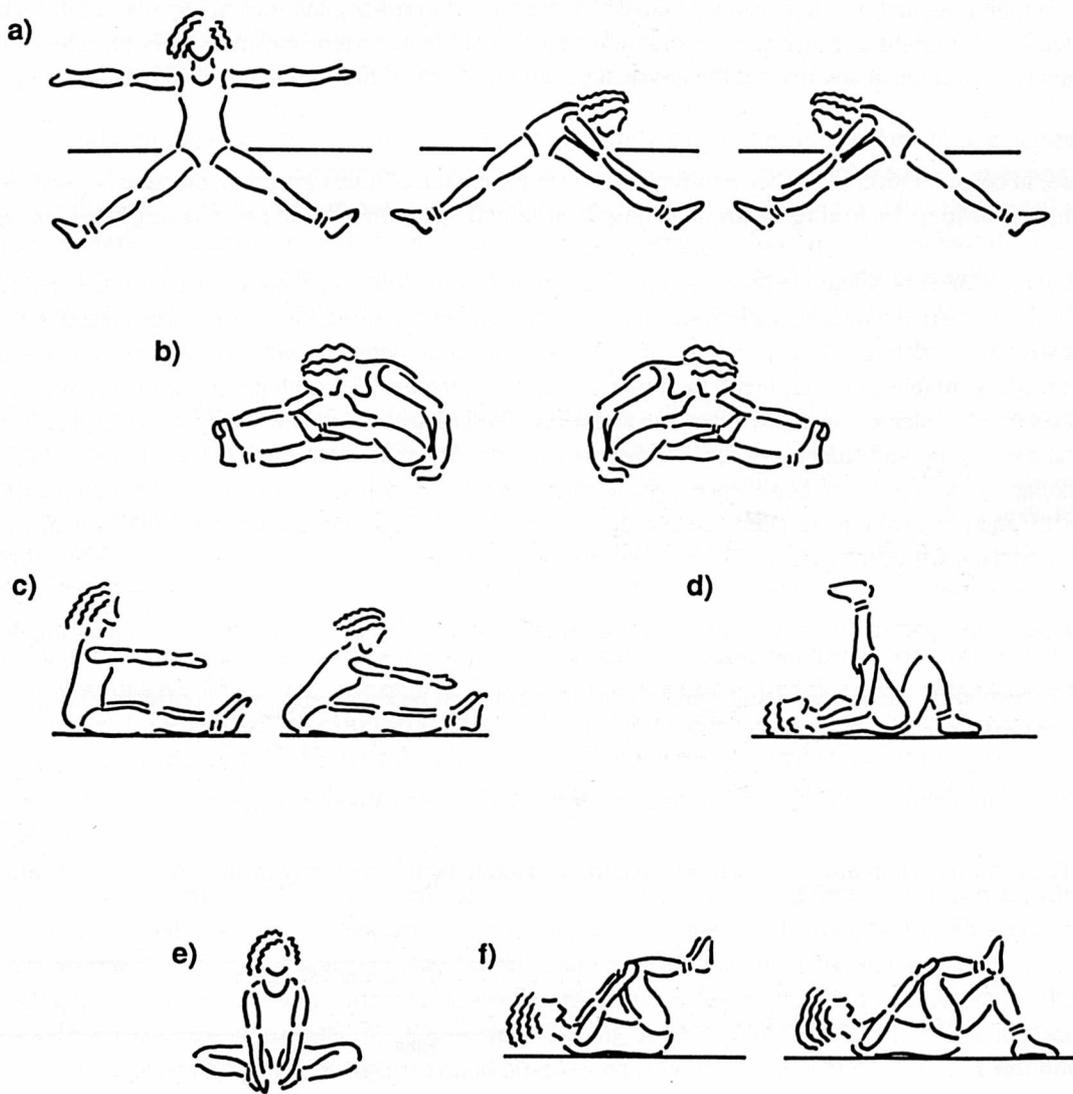


7f



Other Stretches

- a) Sitting with legs apart, lean to the right; hold. Sit up straight and lean to the left; hold then sit up straight. Try to touch your chin to your knee (do not force). Repeat 4 times with each side.
- b) Maintain the same posture as in first exercise. Bend left knee, placing foot on right thigh. Stretch to right, sit up straight, then stretch to the left.
- c) Sit with legs together. Stretch to touch toes; hold. (Again, do not force.)
- d) Lie flat on back, bending one knee. Lift one leg straight up, flexing foot; hold.
- e) Sit with feet together. Press knees to floor; hold.
- f) Lie flat on back. Bring one knee up; hold then relax. Repeat 4 times with each leg. Bring both knees in. Press lower back to floor; hold.



EXAMPLE
EXERCISE STUDY CONSENT FORM

I have been informed that the Community Health Assessment and Prevention Program (CHAPP) is conducting an exercise study of individuals in the area served by DeKalb-Grady Neighborhood Health Clinic. The purpose of this study is to examine factors that affect the participation in certain health promotion programs. The study consists of an interview, physical examination, laboratory studies, and exercise program. I understand that I will be asked questions about my health, medical conditions, current exercise practices, and attitudes towards the usefulness of exercise programs. I also understand that I will have blood drawn for some basic laboratory studies before and after my participation in an exercise program of 10 weeks length.

Many exercise/fitness activities involve substantial risks of bodily injury, property damage, and other dangers associated with participating in such activities. Dangers peculiar to activities normally engaged in include, but are not limited to, broken bones, strains, sprains, bruises, concussion, heart attack. Each participant should be aware that there are risks, hazards, and dangers inherent in such activities.

Each participant in the exercise/fitness program must be covered by an accident and health insurance policy. It is the responsibility of each participant to participate only in those activities for which he/she has the prerequisite skills, qualifications, preparation, and training. Emory University does not warrant or guarantee in any respect the competency or mental or physical condition of any instructor or individual participant in any exercise/fitness activity. The University also does not warrant or guarantee in any respect the physical condition of any of the equipment used in connection with the activity.

Therefore, in consideration of the benefits received from the exercise/fitness program, the undersigned **assumes all risks of damages or injury, including death**, that may be sustained by him/her while participating in any program activity.

The undersigned hereby acknowledges that participation in exercise/fitness programs and activities involves inherent risks of physical injury and assumes all such risks. The undersigned hereby agrees that for the sole consideration of Emory University allowing the undersigned to participate in such programs or activities for which or in connection with which the University has made available any equipment, facilities, grounds or personnel for such programs or activities, the undersigned does hereby release, covenant not to sue and forever discharge Emory University, their respective trustees, officers, agents, employees, and students of any and from all claims, demands, rights, and causes of action of whatever kind or nature including but not limited to negligence, arising from and by reason any and all known and unknown, foreseen and unforeseen bodily and personal injuries, damage to property, and the consequences thereof resulting from any participation in or in any way connected with such exercise/fitness programs and activities.

I have agreed to take part in this study and to give information to the CHAPP interviewer understanding that:

1. My responses, laboratory results, and medical records will be kept completely confidential and my name will not be used in any reports.
2. My participation is voluntary, and I may refuse to participate without penalty.
3. The information in this study will be used to investigate factors that may influence people's health.

Participant's Signature

Date

Interviewer's Signature

Date

MEDICAL CLEARANCE FOR EXERCISE

by
Roy J. Shephard, M.D., Ph.D.

Ever increasing public interest in physical activity has encouraged critical review of currently accepted procedures of medical clearance for exercise programmes.^{1,2,3} Whether the cost of the medical examination is likely to be charged against a private insurance plan such as Blue Cross or (as in Canada) against a government insurance plan, a thorough clinical and laboratory examination of every adult interested in starting an exercise programme could generate a major financial burden for the agency concerned. Moreover, recent analyses^{4,5} have suggested that such physician clearance would contribute remarkably little to the safety of an exercise programme. Indeed, by producing a heavy toll of "false-positive" responses, such examinations could cause unnecessary anxiety and invalidism, and the resultant follow-up investigations might actually increase the risk to the patient.

Obviously, the physician must carefully evaluate the condition of a patient with existing symptoms. However, reasons for medical evaluation of the symptom-free and ostensibly healthy adult are much less apparent. Presumably, the main objectives are to detect (1) any cardiovascular condition that could lead to a cardiovascular catastrophe during exercise, (2) any musculoskeletal or articular problem that might be exacerbated by exercise, and (3) any other disease process where particular caution is needed in prescribing exercise. The occasional more physiologically minded doctor might also think in terms of accurately prescribing the amount of exercise.

Until quite recently, cardiologists have naively believed that a combination of resting and exercise electrocardiography would satisfy the first objective. Those patients who showed a deep horizontal or downward sloping depression of the ST segment during exercise at 85 percent or more of their maximum oxygen intake were thought to have a level of myocardial ischemia that made vigorous and unsupervised physical activity unwise. Application of modern statistical principles has now demonstrated that if such evaluations are made on the symptom-free and relatively health-conscious adult who is likely to volunteer for an exercise programme, at least two of every three supposedly abnormal electrocardiograms will produce a false-positive result!^{4,5}

Uncritical interpretation of the exercise electrocardiogram in the healthy individual thus leads to an unacceptably high proportion of erroneous warnings concerning the dangers of exercise. The proportion of false-positive results can of course be reduced by adopting more restrictive indications for exercise testing. For example, the examinations might be restricted to a much smaller group of exercise volunteers who are obese, heavy smokers, hypertensive, and over the age of 40. In such a population, the prevalence of myocardial ischemia may be as high as 50 percent and a false-positive electrocardiogram will then occur in only 11 percent of those tested.

However, the primary object of the evaluation is not to detect ischemia, but rather to sort out those patients who will develop a cardiac catastrophe (whether ischemic or not). It is thus disappointing to find that, even when exercise electrocardiography is restricted to such an extremely vulnerable population, predictions of an exercise-induced cardiac incident are wrong two times out of three.^{4,5} A cynic might suggest that it would be advantageous to replace the stress electrocardiogram by the simple toss of a coin; the expense would be much less, and one would avoid the morbidity associated with exercise testing.

Accuracy in the interpretation of the electrocardiogram could plainly be improved (although at considerable cost) by adding other laboratory procedures such as echocardiography, nuclear cardiology, and angiography. However, it is still uncertain that the accurate assessment of myocardial ischemia would detect those few individuals who are at risk of developing a fatal episode while exercising. Moreover, whether ischemia is demonstrated or not, the advice that the physician will give to the patient is essentially the same—stop smoking; reduce body fat; take life a little less seriously; and exercise on a regular basis, beginning at a low intensity and progressing slowly to a moderate level. The fallibility of our current process is indicated by medical rejection rates that have varied between 0.7 percent and 15.8 percent when similar large samples of the Canadian public have sought clearance for a simple step test.⁵ Moreover, the likelihood of developing

significant myocardial ischemia during the exercise period was totally uninfluenced by the medical rejection rate!

The likelihood of detecting future musculoskeletal problems in a symptom-free patient seems equally remote, and, even if the physician has the skills to engage in exercise prescription, the average figure for working capacity can give only a very crude guide to the individual patient.⁵

Given this pessimistic assessment of current practice, what are the alternatives? There are three possibilities: (1) make more objective use of a simple, clinical examination, using a standard format such as that suggested by Chisholm and associates;⁶ (2) have the patient complete a simple checklist; or (3) structure the exercise regimen so that preliminary clearance becomes unnecessary.

There have been no formal analyses of the sensitivity and specificity of structured clinical examinations although, in terms of detecting myocardial ischemia, an unstructured clinical examination is about as effective as an exercise stress test.^{4,5}

Self-administered checklists have used from 6 to about 20 questions. One such instrument, the Physical Activity Readiness Questionnaire (PAR-Q), has now been evaluated fairly extensively in Canada. Although it contains only seven items, it apparently has a very adequate level of sensitivity. In our experience, it detected all of those who were subsequently screened out by the examining physician. On a larger scale, it has probably contributed to the absence of serious complications when the Canada Home Fitness Test was performed by over 500,000 Canadians in their own homes.

However, the PAR-Q instrument lacks specificity—as many as 20 percent of the general adult population respond positively to one or more questions.⁵ The main source of the excessive number of positive responses is the question, “Has your doctor ever told you that your blood pressure is too high?” Many people with currently normal blood pressure unfortunately have received such advice in the anxiety-creating environment of a doctor’s office. Changing the format of the questions might create a better balance between sensitivity, but it is improbable that any simple questionnaire, comprehensible to people of varying levels of intelligence, will achieve a much better success rate. It is of course arguable that a 20 percent false-positive rate is acceptable with such a simple test, since this has immediately reduced the number of patients requiring further examination by a factor of five. Costs could be further reduced if the next stage in the process were a discussion with a paramedical health professional and if only those cases failing this level of screening were referred to a physician.

Perhaps the simplest and most effective recommendation of all is to design the exercise recommendation so that clearance is unnecessary. It is generally recognized that any adverse effect of exercise on either the heart or the joints is caused by a sudden burst of physical activity at an intensity or of a duration that is outside the recent experience of the patient. There is little danger in advising a healthy adult to increase the current level of activity slightly and to develop such activity progressively, provided that it (1) is not provoking symptoms and (2) is leaving the individual no more than pleasantly tired the next day. From a fitness perspective, small, gradual increases in walking, built into a normal working day, will probably be more beneficial than a sudden, renewed interest in sports, which may be equally quickly forgotten. Undoubtedly, a few patients will feel a sudden urge to climb Mount Everest or to run a marathon, but, if a detailed medical examination is reserved for these exceptional cases, expense will be kept within reasonable bounds, and the examinations can be rigorous enough to ensure effectiveness.

It has been suggested that a medical examination is more appropriate for the person who does not exercise than for the one who exercises sensibly. However, we do offer some specific advice to those considering starting an exercise programme:

1. Always progress gradually—do not attempt something you could do 20 years ago without adequate preparation.
2. Always reduce the level of activity temporarily if the weather turns very hot or very cold.
3. Always warm up and cool down thoroughly.
4. Always check with your physician if you notice any unusual symptoms, particularly pains or thumps in the chest.
5. Exercise in pairs.

For further information, contact: Roy J. Shephard, M.D., Ph.D./Director, School of Physical and Health Education and Department of Physical Medicine and Biostatistics/Faculty of Medicine/University of Toronto/320 Huron Street/Toronto, Canada M5S1A1.

Footnotes

¹American College of Sports Medicine. Guidelines for graded exercise testing and prescription. Philadelphia: Lea and Febiger, 1975.

²Cooper KH. Guidelines in the management of the exercising patient. JAMA 1970;211:1663-7.

³Ontario Medical Association. Exercise prescription—a physician's guide to assessment of patients who plan to exercise. Toronto: Ontario Medical Association, 1976.

⁴Shephard RJ. Ischemic heart disease and physical activity. London: Croom Helm Publishing; 1982.

⁵Shephard RJ. Can we identify those for whom exercise is hazardous? Sports Med 1984;1:75-88.

⁶Chisholm DM, Collis ML, Kulak LL, Davenport W, Gruber N. Physical activity readiness. Br Colum Med J 1975;17:375-8.

CHAPP QUESTIONNAIRE

General

1. In general, how would you describe your state of health?

- Very Good 1
- Good 2
- Average 3
- Poor 4
- Very Poor 5

2. Do you smoke cigarettes now?

- Yes 1
- No 2

3. What is the average number of cigarettes you smoke per day?

- Less than 1 1
- 1-9 2
- 10-19 3
- 20-39 4
- 40 or more 5

4. Do you drink beer, wine, or other alcoholic beverages?

- Yes 1
- No 2

5. When you drink alcoholic beverages how much beer, wine, or mixed drinks do you usually have?

- less than 1 glass, bottle, or can 1
- 1 glass, bottle, or can 2
- 2 glasses, bottles, or cans 3
- 3 glasses, bottles, or cans 4
- 4-6 glasses, bottles, or cans 5
- 7-9 glasses, bottles, or cans 6
- 10 or more glasses, bottles, or cans. 7

Occupational History

6. On a typical (work) day, how much time do you spend doing:

a. Sitting

- Less than 1/2 hour 1
- 1/2 hour to 1 hour 2
- 1 to 2 hours 3
- 3 to 4 hours 4
- More than 4 hours 5

b. Walking

- Less than 1/2 hour 1
- 1/2 hour to 1 hour 2
- 1 to 2 hours 3
- 3 to 4 hours 4
- More than 4 hours 5

c. Lifting or carrying heavy things

- Less than 1/2 hour 1
- 1/2 hour to 1 hour 2
- 1 to 2 hours 3
- 3 to 4 hours 4
- More than 4 hours 5

d. Other strenuous task

- Less than 1/2 hour 1
- 1/2 hour to 1 hour 2
- 1 to 2 hours 3
- 3 to 4 hours 4
- More than 4 hours 5

Current Exercise

7. Indicate how often you do these activities for at least 20 minutes without stopping.

a. Basketball

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

b. Calisthenics

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

c. Cycling-bike

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

d. Dancing (slow)

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

e. Dancing (vigorous)

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

f. Football

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

g. Frisbee

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

h. Hiking/backpacking

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

i. Judo/kung-fu/karate

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

j. Racquetball/squash/handball

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

k. Rope Skipping

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

l. Rowing

- Never or Almost Never 1
- A few times a year 2
- A few times a month 3
- 1-2 times a week 4
- 3 or more times a week 5

- m. Running/jogging
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- n. Skating
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- o. Skiing
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- p. Softball
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- q. Stair climbing
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- r. Swimming
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- s. Trampoline
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- t. Volleyball
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- u. Walking
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

- v. Other (specify)
- Never or Almost Never 1
 - A few times a year 2
 - A few times a month 3
 - 1-2 times a week 4
 - 3 or more times a week 5

Reasons for doing physical activity

8. Here is a list of reasons why some people do physical activities during their leisure time. How important is each of these to you?

- a. To feel better mentally and physically
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- b. To be with other people
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- c. For pleasure, fun, or excitement
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- d. To prevent heart attacks or to live a long healthy life
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- e. To become physically fit
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- f. For competition
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- g. To control weight or to look better
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- h. To move better or to improve flexibility
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- i. As a challenge to my abilities
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- j. To relax or reduce stress
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- k. To learn new things
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- l. Because of fitness specialist's advice for improving health in general
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- m. Because of doctor's orders for therapy or rehabilitation
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- n. Carrying through on plans to exercise would give me self-satisfaction
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- o. My job performance would be enhanced if I exercised regularly.
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- p. To feel more attractive.
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

- q. Other (specify) _____.
- Very Important 1
 - Of Some Importance 2
 - Of Little Importance 3
 - Of No Importance 4

Exercise Effects

This section describes some possible effects of regular exercise. Please read and respond to each of the statements. Decide the extent to which you agree with it.

9. If I participate in regular exercise or sports then:

- a. I will reduce my anxiety.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- b. I will improve my coordination.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- c. I will be healthier.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- d. I will increase my physical strength.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- e. I will increase my heart and lung fitness.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- f. I will be more popular.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- g. I will feel better about myself.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- h. I will be stronger than people who don't.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- i. I will like the way my body looks.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

- j. I will be better able to adjust to life.
- Strongly agree 1
 - Agree 2
 - Uncertain 3
 - Disagree 4
 - Strongly Disagree 5

k. I will be well accepted in social situations.

- Strongly agree 1
- Agree 2
- Uncertain 3
- Disagree 4
- Strongly Disagree 5

l. I will be more stressed.

- Strongly agree 1
- Agree 2
- Uncertain 3
- Disagree 4
- Strongly Disagree 5

m. I will have better physical coordination.

- Strongly agree 1
- Agree 2
- Uncertain 3
- Disagree 4
- Strongly Disagree 5

n. It will do nothing to help me like myself.

- Strongly agree 1
- Agree 2
- Uncertain 3
- Disagree 4
- Strongly Disagree 5

o. I will get sick just as often.

- Strongly agree 1
- Agree 2
- Uncertain 3
- Disagree 4
- Strongly Disagree 5

Social Support and Exercise

Please rate the following items, once for family and once for friends using the following scale.

10. Exercised with me.

a. Family

- Never 1
- Rarely 2
- A Few Times 3
- Often 4
- Very Often 5

b. Friends

- Never 1
- Rarely 2
- A Few Times 3
- Often 4
- Very Often 5

11. Offered to exercise with me.

a. Family

- Never 1
- Rarely 2
- A Few Times 3
- Often 4
- Very Often 5

b. Friends

- Never 1
- Rarely 2
- A Few Times 3
- Often 4
- Very Often 5

12. Gave me encouragement to stick with my exercise program.

a. Family

- Never 1
- Rarely 2
- A Few Times 3
- Often 4
- Very Often 5

b. Friends

- Never 1
- Rarely 2
- A Few Times 3
- Often 4
- Very Often 5

.13. Criticized me or made fun of me for exercising.

a. Family

- Never 1
- Rarely 2
- A Few Times 3
- Often 4
- Very Often 5

b. Friends

- Never 1
- Rarely 2
- A Few Times 3
- Often 4
- Very Often 5

SAMPLE PRESS RELEASE

All too often, medical centers operate community health programs with the conviction that the medical staff knows what is best for the community and that only the medical center can decide what is a community's greatest health need. At Emory University, however, the Department of Community Health has received funding from the Centers for Disease Control for a project that will reverse the usual bias and let the community decide its own health agenda.

The name of the project is CHAPP—the Community Health Assessment and Promotion Project. Headquartered in the DeKalb-Grady clinic and operating in a predominantly black urban Atlanta community, CHAPP is hitting the streets with questionnaires, organizing town meetings, calling on elected officials, and opening its ear to anyone with something to say to determine the neighborhood's perception of its pressing health need. Once CHAPP's staff ascertains the community's health priorities, they will again seek community help, this time to learn the most effective way to conduct a program of prevention and change.

CHAPP evolved as a result of doctors seeing a high rate of the same chronic conditions. Citizens observed, "We're usually in here for the same thing, our children get sick a lot." When citizens asked, "What can we do about it?" says project coordinator, "We decided to seek some modest start up funds to go out into the community and say, 'Okay, let's see what we can do together.'"

Though the idea of citizen participation is by no means a new one, CHAPP represents the first time a major medical center such as Emory University has entered a target community intending to shape a preventive health program through the community consensus and support. As a result, CHAPP is considered an experimental project, or, in the words of the coordinator, "a model for other community health programs nationwide."

The project is already in full swing, and CHAPP supporters are contacting elected officials and local agency and service personnel, organizing open town meetings, and, with the input of a steering committee composed of neighborhood representatives, compiling a questionnaire designed to measure community concerns and priorities. To disseminate the questionnaire — and to gather the 3,000 responses it expects to receive — CHAPP has hired community residents to interview their neighbors fact to face, door to door, and in churches and local shopping centers.

As CHAPP distributes and collects questionnaires, it will also be looking at statistical information about the community through a study of birth and death records at the Georgia State Office of Vital Statistics. A behavior risk factor survey developed by the Centers for Disease Control will be employed which, according to the coordinator, "Indicates what the prevalent risk factors are for the community and identifies what groups are the highest risk. The information from the survey makes people aware of the health risks they're facing." Then, in June, at community and town meetings, CHAPP will present to the community the results of its questionnaires and demographic profiles, and the community will make its choice and decide how to face its most pressing health problem together.

CHAPP staff will then continue working with the community to "get something started" and learn how to best address the community's medical needs. We want community leaders to get together with residents and determine which aspects of their lifestyle they want to change. We hope that by the time we finish listening to community opinion — distributing questionnaires, setting up tables in front of churches, attending PTA meetings, telling people about the health resources they already have — the citizens of this community will take charge of making the changes in their neighborhood which will lead them to healthier lives.

If you are interested in learning more about CHAPP, call 404/373-1006.

PARTICIPANT'S NAME _____

WEIGHT RECORD

PLEASE WRITE YOUR WEIGHT NEXT TO THE CORRESPONDING WEEK.

WEIGHT WEEK 1	
WEIGHT WEEK 2	
WEIGHT WEEK 3	
WEIGHT WEEK 4	
WEIGHT WEEK 5	
WEIGHT WEEK 6	
WEIGHT WEEK 7	
WEIGHT WEEK 8	
WEIGHT WEEK 9	
WEIGHT WEEK 10	

EXERCISE - NUTRITION PROGRAM EVALUATION

NAME _____
(Optional)

DATE _____

	Not Satisfied				Very Satisfied
How satisfied are you with the nutrition program?	1	2	3	4	5
How satisfied are you with the Fitness to Music?	1	2	3	4	5
How satisfied are you with the Water Exercise Program?	1	2	3	4	5
How satisfied are you with the Walking Program?	1	2	3	4	5
How satisfied are you with the Thursday evening programs?	1	2	3	4	5

If I were running this exercise-nutrition program I would change

Something that I have learned, realized, or changed in my life as a result of the exercise-nutrition program is

Use the space below to write additional comments.

EXIT INTERVIEW WITH EXERCISE-NUTRITION PROJECT DROP-OUT

Name: _____ SEX: M F TYPE OF INTERVIEW:
RACE: _____ in person:
BIRTH DATE: _____ telephone:

1. Length participant remained in intervention (in days):

2. Stated reason (in participant's own words) as to why he/she dropped out:

3. Date and time of declaration to stop participating:

4. On a scale of 1 (excellent) to 5 (poor), how would they rate the following aspects of the project:

a) Announcements	1	2	3	4	5
b) Intervention	1	2	3	4	5
c) Communication	1	2	3	4	5
d) Group leader (specify)	1	2	3	4	5
e) Location of intervention	1	2	3	4	5
f) Time of intervention	1	2	3	4	5
g) Support efforts, if any	1	2	3	4	5
h) Medical/health evaluation	1	2	3	4	5
i) Support efforts, if any	1	2	3	4	5
j) Any interest in participating in future intervention?	1	2	3	4	5

5. Comments:

CHAPP FOLLOW-UP DATA

Name: _____

Wt# _____

Date: _____

B/P _____

Are you interested in joining the Exercise-Nutrition Program for maintenance?

_____ Yes, Phone # _____

_____ No

Are you taking blood pressure medicine now?

_____ Yes
(if yes, any recent changes?) When _____

_____ No

How do you feel now since taking the program?

_____ Better

_____ Okay

_____ Worse

Are you exercising now?

_____ No

_____ Yes

If yes,

_____ Once a week

_____ Twice a week

_____ More than twice a week

How are your eating habits now?

_____ About the same

_____ I am eating more

_____ I am eating less

_____ Different, how? _____



Sarah Taylor

Lost 32 pounds in 6 months.

099632