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**AUTHOR** Harvey, Dexter; Cap, Orest  
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**ABSTRACT**

This instructional module on nutrition and the older adult is one in a block of 10 modules designed to provide the human services worker who works with older adults with basic information regarding the aging process. An introduction provides an overview of the module content. A listing of general objectives follows. Five sections present informative material on each of the five objectives. Topics are body changes due to aging and their effect on nutritional status, social factors that affect nutritional status, the basic food groups and their relationship to nutritional status, nutrition and chronic health conditions, and effects of drugs on nutritional status. Other contents include a summary and listings of selected readings and additional resources. (YLB)

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# BOOK A

## Basic Knowledge of the Aging Process

# MODULE A-9

# Nutrition and the Older Adult

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# ELDERLY SERVICE WORKERS' TRAINING PROJECT

## PROJECT PERSONNEL

- DR. DEXTER HARVEY: PROJECT CO-DIRECTOR, PROFESSOR,  
FACULTY OF EDUCATION, U OF M.
- DR. OREST CAP: PROJECT CO-DIRECTOR, ASSOC. PROFESSOR,  
FACULTY OF EDUCATION, U OF M.
- MS. SHELLEY TURNBULL, PROJECT COORDINATOR
- MR. IHOR CAP, TECHNICAL COORDINATOR

## ADVISORY COMMITTEE

- MS. DOROTHY CHRISTOPHERSON, CENTRE HOSPITALIER TACHE NURSING  
CENTRE, STAFF DEVELOPMENT COORDINATOR
- MR. HELMUT EPP, ADMINISTRATOR, BETHANIA MENNONITE PERSONAL CARE  
HOME INC.
- MS. DOROTHY HARDY, PERSONNEL SERVICES DIRECTOR, AGE AND  
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- MS. MARY HOLLAND, MEMBER AT LARGE
- MR. JACK N. KISIL, ADMINISTRATOR, HOLY FAMILY NURSING HOME
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- MR. R.L. STEWART, EXECUTIVE DIRECTOR, AGE AND OPPORTUNITY  
CENTRE INC.
- MS. FLORA ZAHARIA, DIRECTOR, DEPARTMENT OF EDUCATION,  
NATIVE EDUCATION BRANCH

FACULTY OF EDUCATION  
UNIVERSITY OF MANITOBA  
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NUTRITION AND THE OLDER ADULT  
MODULE A.9

THE ELDERLY SERVICE WORKERS' TRAINING PROJECT  
WISHES TO EXPRESS APPRECIATION OF THE FOLLOWING  
INDIVIDUALS WHO HAVE CONTRIBUTED TO THE DEVELOPMENT OF  
THE "NUTRITION AND THE OLDER ADULT" MODULE.

MS. LYNDA CORBY, CONTENT CONTRIBUTOR

MS. ELIZABETH DAY, CONTENT CONTRIBUTOR

MS. SHERRY EDWARDS, SCRIPT WRITER

MS. ETHEL HOOK, CONTENT CONTRIBUTOR

MS. PATRICIA MURPHY, COVER DESIGN

MR. BRIAN PARKER, GRAPHIC ARTIST

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## INTRODUCTION

" COME OVER FOR COFFEE ". " HAVE ANOTHER PIECE OF PIE". " IF YOU'RE BAD, YOU'LL GO TO BED WITHOUT SUPPER".

FOOD IS ONE OF THE MOST IMPORTANT FACTORS IN SOCIETY. SOME PEOPLE EAT TO LIVE - OTHERS LIVE TO EAT. WHATEVER THE CASE MAY BE, EATING THE PROPER FOODS IN AMOUNTS APPROPRIATE FOR AGE AND ACTIVITY IS ESSENTIAL FOR GOOD HEALTH.

BUT WHAT IS GOOD NUTRITION? WHAT ARE 'PROPER FOODS'? HOW MUCH IS ENOUGH? WHY DOES AUNT MARTHA GROW PLUMP ON TEA AND TOAST, BUT UNCLE HENRY STAY TRIM ON EGGS AND BACON?

THE OLDER ADULT SOMETIMES HAS DIFFICULTY ADJUSTING FOOD INTAKE TO CHANGING BODY NEEDS. WHILE LESS ENERGY FOODS ARE REQUIRED AS ONE GROWS OLDER, ONE STILL NEEDS ALL THE FOOD NUTRIENTS TO KEEP HEALTHY. HOW DOES ONE BALANCE THIS? HOW CAN ONE AVOID BEING OVERWEIGHT AND STILL EAT FOR A HEALTHY LIFE?

THIS MODULE ANSWERS THESE QUESTIONS AND MANY MORE. IT EXAMINES BODY CHANGES THAT AFFECT A PERSON'S EATING AND DIET. IT LOOKS AT THE " SOCIAL " ASPECT OF EATING FOR THE OLDER ADULT. REVIEW OF THE FOOD NUTRIENTS SHOW WHICH ARE NECESSARY AND THE FOODS THEY COME FROM. LASTLY, IT LOOKS AT THE WAY SOME CHRONIC ILLNESSES AFFECT DIET FOR THE OLDER ADULT.

## GENERAL OBJECTIVES

UPON COMPLETION OF THIS MODULE, YOU WILL BE ABLE TO:

- (1) UNDERSTAND BODY CHANGES DUE TO AGING AND THEIR AFFECT ON THE NUTRITIONAL STATUS.
- (2) IDENTIFY SOCIAL FACTORS COMMON TO OLDER ADULTS THAT AFFECT THEIR NUTRITIONAL STATUS.
- (3) DESCRIBE THE BASIC FOOD GROUPS, THEIR NUTRIENTS, AND THEIR RELATIONSHIP TO THE NUTRITIONAL STATUS OF THE OLDER ADULT.
- (4) BE AWARE OF THE DIETARY NEEDS OF AN OLDER ADULT WITH A CHRONIC HEALTH CONDITION AND HOW DIET CAN AFFECT A CHRONIC HEALTH CONDITION.
- (5) BE AWARE OF THE POSSIBLE AFFECTS OF DRUGS ON NUTRITIONAL STATUS AND DIETARY CHOICES.



THE FOLLOWING SECTION REVIEWS BODY CHANGES THAT HAVE A PROFOUND AFFECT ON THE AMOUNT AND KIND OF FOODS THAT THE OLDER ADULT REQUIRES.

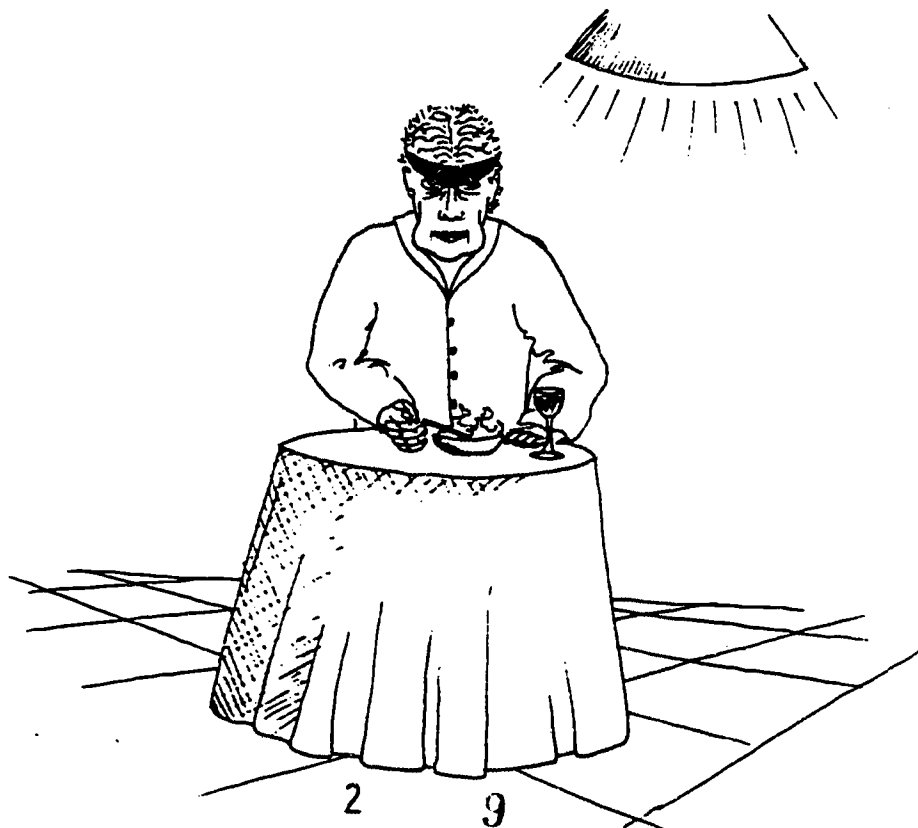
### BODY CHANGES AND NUTRITION

UPON COMPLETION OF THIS SECTION, YOU WILL BE ABLE TO UNDERSTAND BODY CHANGES DUE TO AGING AND THEIR AFFECT ON THE NUTRITIONAL STATUS OF THE OLDER ADULT.

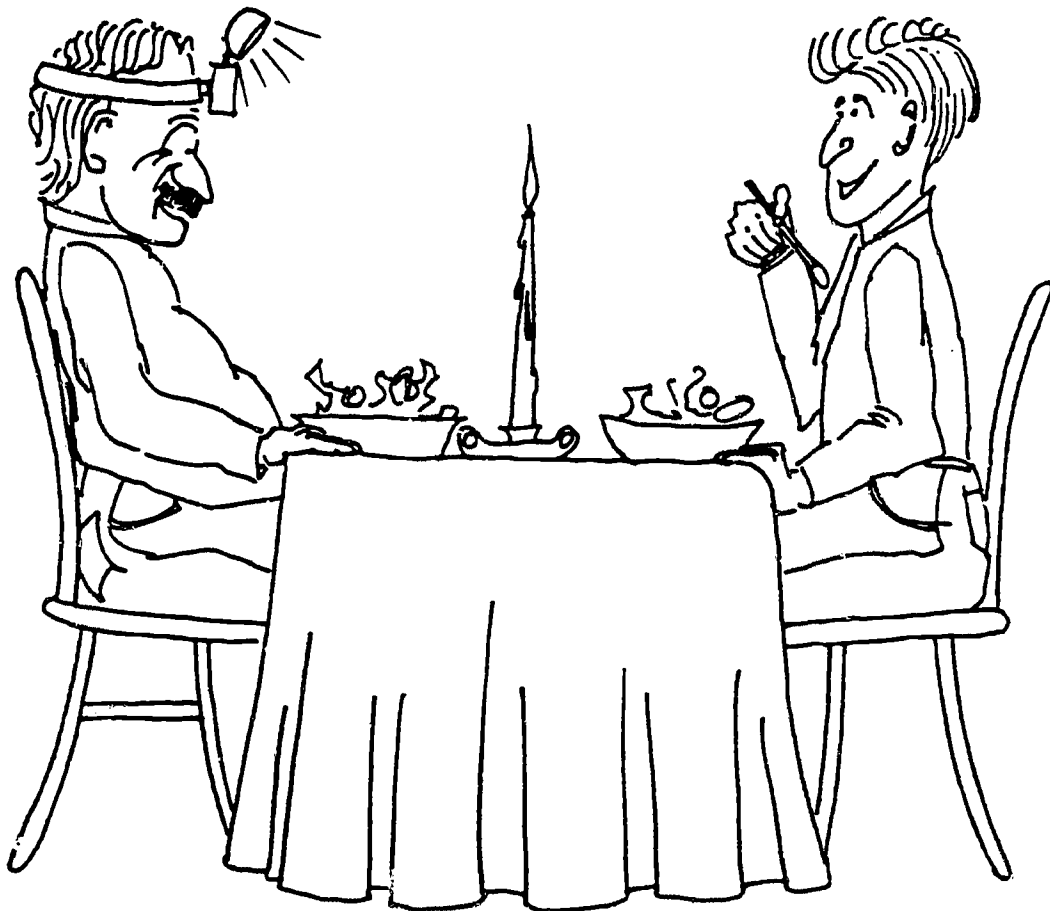
AGING BRINGS INEVITABLE BODY CHANGES. THE 'PHYSIOLOGY ASPECTS OF AGING' MODULE DESCRIBES THE GENERAL AGING PROCESS.

#### EYESIGHT

EYESIGHT CHANGES WITH TIME. DIM LIGHTS, GLARE OR SHINE BECOME MORE DIFFICULT FOR OLDER EYES TO COPE WITH.



WHEN SUCH LIGHTING CONDITIONS ARE ENCOUNTERED ON A CONTINUOUS BASIS, THE ADVERSE EFFECTS MAY RESULT IN HEADACHES, EYESTRAIN OR PERCEPTION PROBLEMS. IF THEY ARE EXPERIENCED DURING MEALTIMES, THEY MAY AFFECT ONE'S DESIRE TO EAT. AFTER ALL, IF IT IS A MAJOR UNDERTAKING TO SEE WHERE THE FOOD IS ON THE TABLE, IT BECOMES EVEN MORE OF A PROBLEM TO TRY TO DISTINGUISH WHAT THE FOOD MIGHT BE ON ONE'S PLATE. MODERATE LIGHT, MINIMAL REFLECTION AND FOODS OF GOOD COLOR CONTRAST CREATE THE BEST EATING CONDITIONS IN RELATION TO VISION.



MEALTIMES ARE NOT THE ONLY AREAS AFFECTED BY DECREASED VISION. CHANGES IN EYESIGHT ALSO MAKE SMALL PRINT HARD TO SEE. LABELS ON GROCERIES AND THE PRINT IN COOKBOOKS AND ON RECIPE CARDS BECOME DIFFICULT TO READ WITHOUT THE ASSISTANCE OF A MAGNIFYING GLASS.



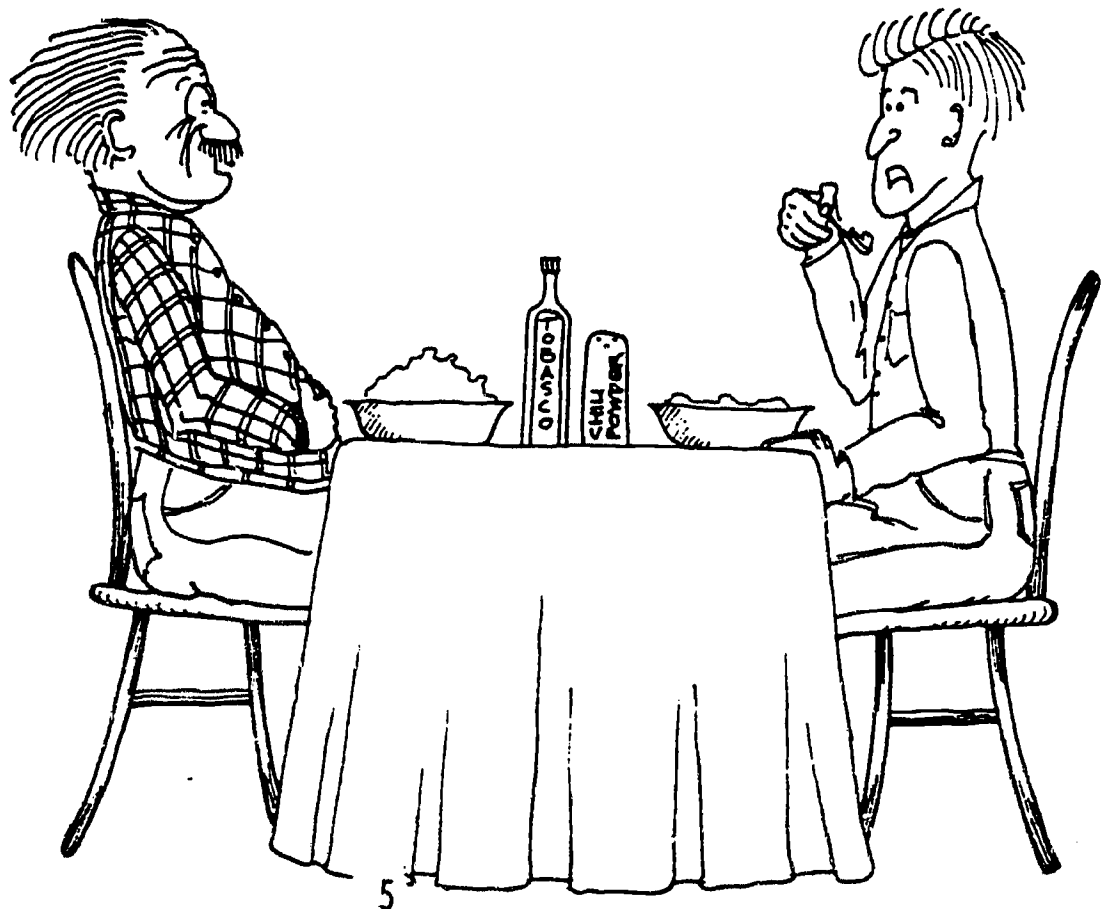
GOOD LIGHTING, PROPER GLASSES, AND EXTRA TIME ARE NEEDED FOR THE OLDER ADULT TO SHOP WISELY.

## MOUTH

THE STRUCTURE OF THE MOUTH DOES NOT REALLY CHANGE AS A RESULT OF AGING. PROCESSES WHICH OCCUR WITHIN THE MOUTH HOWEVER DO CHANGE.

THE FLOW OF SALIVA DECREASES WITH AGING. THUS, BOTH MOISTENING AND DIGESTION PROCESSES ARE SLOWED DOWN. IN ORDER TO COMPENSATE FOR THIS, FOODS WITH HIGH MOISTURE CONTENT MAY BE BETTER FOR THE OLDER ADULT - CASSEROLES, MEAT WITH SAUCES, PUDDINGS.

THE TASTE BUDS WHICH DISTINGUISH BETWEEN 'SWEET' AND 'SALTY' TASTES ARE ALSO AFFECTED BY THE AGING PROCESS. UNFORTUNATELY, THE 'BITTER' AND 'SOUR' TASTE BUDS REMAIN UNCHANGED SO FOODS MAY PRODUCE TASTES THAT ARE DISTORTED AND UNPLEASANT.



ILLNESS AND MEDICATION ALSO CAN CHANGE ONE'S TASTE PERCEPTION OF FOODS. THESE CHANGES, ALONG WITH ACTUAL TASTE BUD CHANGES MAY MAKE FOODS FLAT TASTING AND UNINTERESTING. THE OLDER ADULT MAY BE THEN TEMPTED TO USE EXTRA SUGAR OR SALT TO TRY TO RECAPTURE THE 'FAMILIAR' TASTE.



THESE EXCESSES ARE UNHEALTHY. THE OLDER ADULT IS WISE TO CHOOSE A VARIETY OF SEASONINGS TO COMPENSATE FOR THE CHANGES IN TASTE SENSATIONS.

WHATEVER THE CAUSE OF THE TASTE CHANGE, THERE ARE A FEW THINGS THE OLDER ADULT CAN DO TO COMPENSATE.

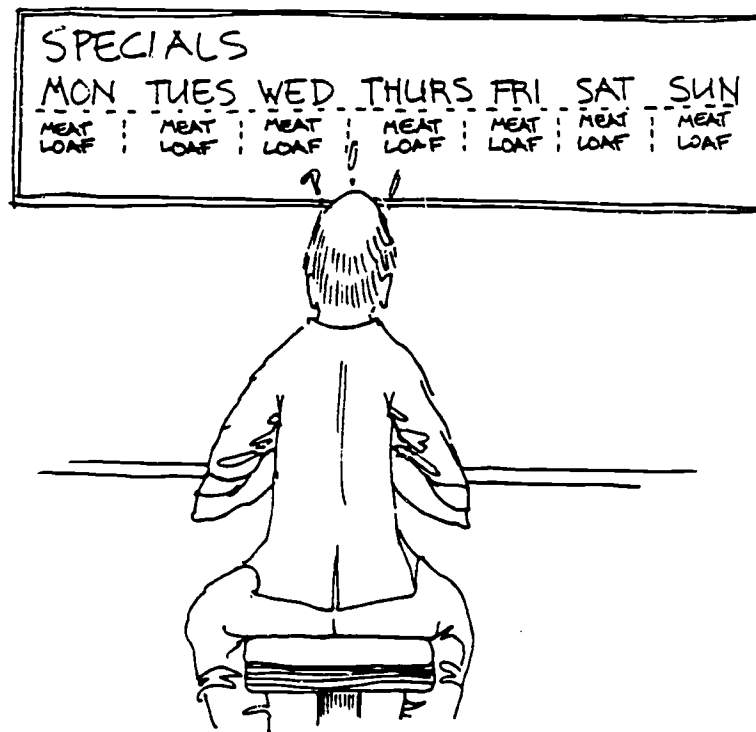
1) CHEW FOOD THOROUGHLY. CHEWING FOOD WELL BREAKS IT DOWN INTO SMALLER PIECES AND EXPOSES IT TO THE TASTE BUDS FOR 'MAXIMUM' TASTE. THE LONGER SALIVA IS EXPOSED TO THE FOOD IN THE MOUTH THE SWEETER IT WILL TASTE! IT ALSO GIVES THE SALIVA A BETTER CHANCE TO START DIGESTION.

2) HAVE PROPERLY FITTING DENTURES. LACK OF TEETH OR POORLY FITTING DENTURES HAMPER BOTH CHEWING AND TASTING!



THE OLDER PERSON WHO HAS TEETH PROBLEMS MAY BE TEMPTED TO CHOOSE ONLY FOODS THAT REQUIRE LITTLE CHEWING. THESE MAY BE DULL IN VARIETY AND INADEQUATE IN NUTRIENTS RESULTING IN LESS PLEASURE IN EATING AND EVEN A SENSE OF DISINTEREST.

## BUD'S DINER



THE COMBINATION OF DECREASED SALIVA, DECREASED TASTE SENSATION, AND DECREASED CHEWING CAPACITY MAKE IT DIFFICULT FOR OLDER ADULTS AFFECTED BY THESE PROBLEMS TO PLAN AND EAT MEALS THAT ARE NUTRITIOUS, VARIED, AND TEMPTING.



## GASTRO-INTESTINAL TRACT

A REDUCTION OF ENZYMES DUE TO THE AGING PROCESS LEADS TO THE SLOWER DIGESTION AND ABSORPTION OF FOOD. HOWEVER, HALF OF THE GASTRIC COMPLAINTS OF OLDER ADULTS ARE RELATED TO POOR EATING HABITS, POOR FOOD CHOICES, TENSIONS AND POOR BOWEL HABITS. AS WELL, INADEQUATE FOOD BREAKDOWN MAY PRODUCE HEARTBURN, ABDOMINAL GAS, AND CONSTIPATION. SOME OF THE PROBLEMS THOUGH ARE DUE TO ACTUAL BODY CHANGES. THESE CHANGES ARE DISCUSSED IN THE FOLLOWING SECTION.

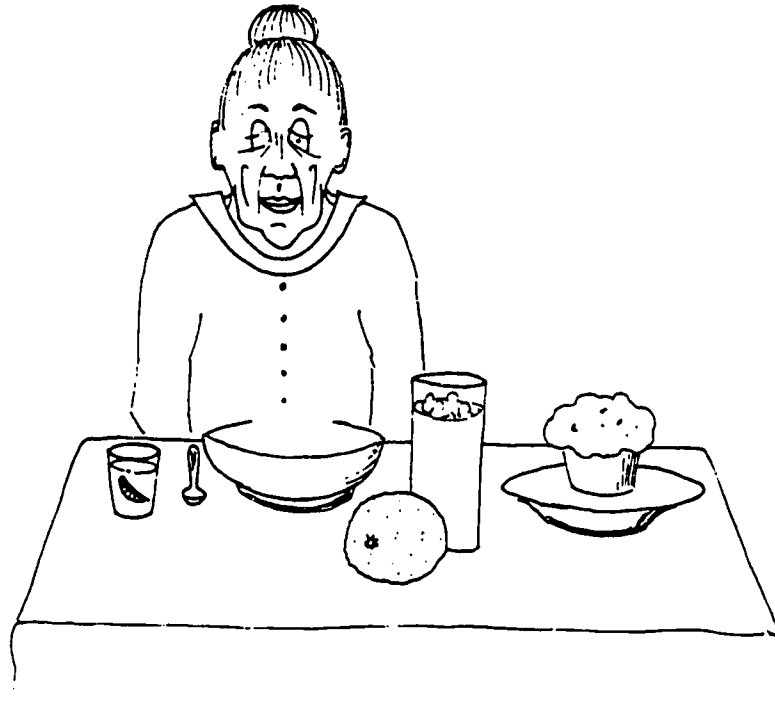
THE STOMACH WALLS PRODUCE HYDROCHLORIC ACID TO HELP DIGEST PROTEIN AND TO KILL BACTERIA. REDUCED AMOUNTS OF HYDROCHLORIC ACID RESULT IN POOR USE OF PROTEIN. THIS 'SHORT CHANGES' THE BODY OF NEEDED IRON AND CALCIUM AS WELL AS ENABLING BACTERIA TO GROW.

NEXT DOOR TO THE STOMACH IS THE PANCREAS, A GLAND THAT PRODUCES MANY ENZYMES NEEDED FOR FOOD DIGESTION. THESE ENZYME AMOUNTS DECREASE WITH AGING BUT IT IS IMPORTANT TO RECOGNIZE THAT THIS DECREASE ONLY SLOWS DOWN THE DIGESTIVE PROCESS. IT STILL WORKS ADEQUATELY, JUST A LITTLE SLOWER.

LOSS OF MUSCLE TONE OF THE STOMACH WALLS RESULTS IN DELAYED EMPTYING. THIS GIVES ONE AN EXTENDED FEELING OF FULLNESS WHICH CREATES A REDUCTION IN APPETITE.



SMALLER, MORE FREQUENT MEALS HELP TO AVOID THE FEELING OF FULLNESS AND DISCOMFORT OF LARGE MEALS. AS WELL, SMALLER MEALS ARE ABLE TO BE DIGESTED MORE EASILY AND FASTER.



OTHER CONTRIBUTIONS TO ABDOMINAL DISCOMFORT ARE 'FATTY' AND 'GASSY' FOODS. THEY ARE BEST AVOIDED BY THE OLDER ADULT.

CONSTIPATION IS A COMMON PROBLEM FOR OLDER ADULTS. ALTHOUGH IT IS RELATED TO THE GASTRO-INTESTINAL TRACT, IT WILL BE DISCUSSED IN THE SECTION " CHRONIC HEALTH CONDITIONS".

FOR MORE INFORMATION ON THE GASTRO-INTESTINAL TRACT, PLEASE REFER TO THE PHYSIOLOGICAL MODULE.

IT IS IMPORTANT TO RECOGNIZE THE KIDNEYS AND THEIR JOB. THEY ARE RESPONSIBLE FOR FILTERING BODY WASTES FROM THE BLOOD STREAM. WITH AGE, THEIR EFFICIENCY LESSENS RESULTING IN INCREASED FREQUENCY OF URINATION. THE OLDER ADULT MAY THEN BE TEMPTED TO REDUCE FLUID INTAKE TO SAVE ON THE INCREASED NIGHT JAUNTS TO THE BATHROOM. THIS IS UNNECESSARY AND UNFAIR TO THE KIDNEYS. THEY NEED THE FLUID TO WORK PROPERLY. A WELL-SPACED DAILY INTAKE OF 2 LITRES OF FLUIDS ( NON-INTOXICATING ) WILL HELP THE OLDER ADULT MAINTAIN GOOD KIDNEY FUNCTION.

### SUMMARY

PHYSIOLOGICAL CHANGES IN THE OLDER ADULT, SUCH AS FAILING EYESIGHT, DECREASED SECRETION OF SALIVA AND TASTE SENSATION CAN AFFECT THEIR ABILITY TO PURCHASE, PREPARE AND ENJOY NUTRITIOUS MEALS. ALSO, TO ENSURE GOOD HEALTH, IT IS NECESSARY TO MAKE SEVERAL DIETARY ADJUSTMENTS, SUCH AS THE CONSUMPTION OF TWO (2) LITRES OF FLUID PER DAY AND EATING SMALLER MORE FREQUENT MEALS.

THE FOLLOWING SECTION LOOKS AT SOCIAL FACTORS THAT AFFECT THE NUTRITIONAL STATUS OF THE OLDER ADULT.

## SOCIAL FACTORS AND NUTRITION

UPON COMPLETION OF THIS SECTION, YOU WILL BE ABLE TO IDENTIFY SOCIAL FACTORS COMMON TO OLDER ADULTS THAT AFFECT THEIR NUTRITIONAL STATUS.

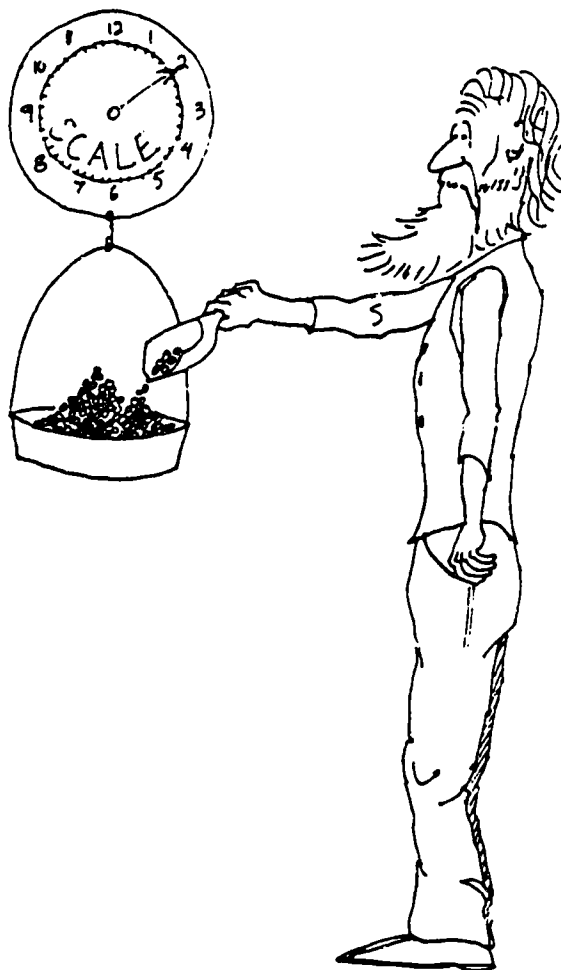
FIVE MAJOR SOCIAL FACTORS AFFECTING NUTRITIONAL STATUS ARE:

1. LIMITED INCOME
2. SUBSTANDARD HOUSING
3. INADEQUATE TRANSPORTATION
4. SOCIAL ISOLATION
5. LONG ESTABLISHED POOR FOOD HABITS.

EACH OF THESE FACTORS WILL BE EXAMINED ON AN INDIVIDUAL BASIS.

## 1. LIMITED INCOME

THE ADEQUACY OF A PERSON'S DIET IS OFTEN CLOSELY ASSOCIATED WITH INCOME LEVEL. THE FOOD BUDGET IS ONE OF THE FEW VARIABLES ON A TIGHT INCOME. CONSEQUENTLY THE SATISFACTION OF HUNGER AT MINIMAL COST OFTEN TAKES PRIORITY OVER CAREFUL SELECTION OF A WELL-BALANCED DIET. SOME OLDER ADULTS NEED ASSISTANCE, NOT JUST IN CHOOSING NOURISHING FOODS, BUT IN SELECTING THOSE AT THE BEST COST. THE PAMPHLET, SHOPPING FOR FOODS AND NUTRITION OFFERS MANY HELPFUL GUIDELINES ON SELECTING ECONOMICAL NUTRITIOUS FOODS. SEE THE RESOURCES SECTION OF THIS MODULE FOR INFORMATION ON WHERE TO OBTAIN THIS PAMPHLET.



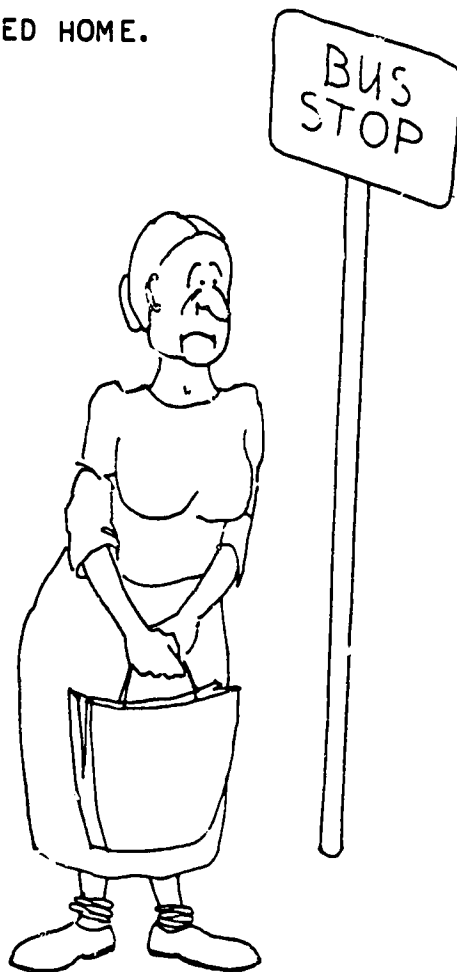
## 2. SUBSTANDARD HOUSING

SOME OLDER ADULTS HAVE ONLY A SMALL ROOM IN A ROOMING HOUSE TO CALL THEIR OWN. THEY USUALLY LACK ADEQUATE FOOD PREPARATION, REFRIDGERATION AND STORAGE FACILITIES. THESE LIMITATIONS NARROW THE RANGE OF FOODS THAT CAN BE PURCHASED AND PREPARED AND MAY NECESSITATE THE USE OF HIGH-COST CONVENIENCE FOODS.

EDUCATING THE OLDER ADULT IN THE PREPARATION OF ONE DISH MEALS OR DOUBLE-BOILER COOKING MAY BE HELPFUL.

## 3. INADEQUATE TRANSPORTATION

LACK OF TRANSPORTATION LIMITS THE ACCESSIBILITY TO FOOD SHOPPING AND THE AMOUNT OF GROCERIES THAT CAN EASILY BE CARRIED HOME.





FEAR OF PERSONAL SAFETY MAY EVEN INHIBIT AN OLDER ADULT FROM SHOPPING ALONE. NEARBY CONVENIENCE STORES WHICH OFFER EASIER ACCESS ARE USUALLY HIGHER IN COST AND PROVIDE A LIMITED SELECTION.

OLDER ADULTS IN SUCH CIRCUMSTANCES CAN BENEFIT FROM MEALS-ON-WHEELS PROGRAMS AND GROUP DROP-IN CENTRES. OFTEN THESE PROGRAMS PROVIDE MEALS ALONG WITH SOCIAL ACTIVITIES.

#### 4. SOCIAL ISOLATION

THE LOSS OF A MEANINGFUL ROLE IN THE COMMUNITY MAY LEAD TO LOWERED SELF-ESTEEM AND SELF CONFIDENCE PLUS A LACK OF INCENTIVE. PEOPLE WHO ARE UNABLE TO GET TO SEE THEIR FRIENDS BECOME LONELY, DEPRESSED, BORED AND ANXIOUS. ALL OF THESE PROBLEMS COMPOUND THE TENDENCY OF NOT PREPARING WHOLESOME MEALS.

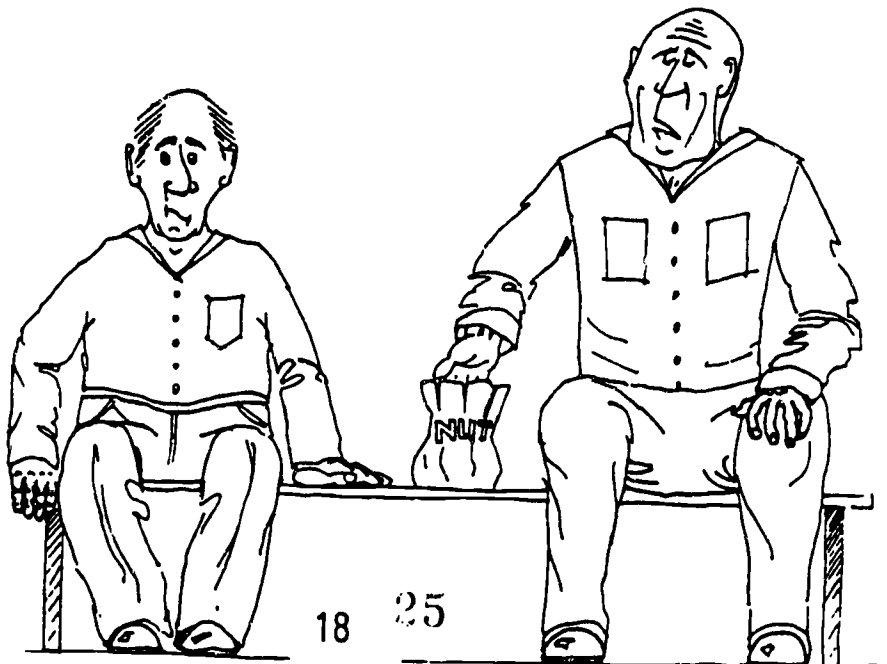


SOME PEOPLE RESPOND TO ISOLATION BY REFUSING TO EAT. THE OPPOSITE IS ALSO TRUE - MANY PEOPLE TURN TO FOOD FOR COMFORT AND BECOME OBESE AS A RESULT.

THERE ARE MANY WAYS TO ENCOURAGE A LONELY INDIVIDUAL TO EAT MORE NUTRITIOUSLY.

A FEW IDEAS ARE:

- COOK TODAY FOR YOURSELF AND A FRIEND, TOMORROW THE FRIEND CAN DO THE COOKING; EAT TOGETHER FOR COMPANY.
- USE THE SAME POT TO COOK TWO FOODS TO MAKE CLEAN-UP EASIER, POTATOES CAN BE COOKED RIGHT ALONG WITH OTHER VEGETABLES; ADD THE ONE THAT REQUIRES THE LEAST COOKING TIME LAST.
- ARRANGE WITH SEVERAL FRIENDS TO GET TOGETHER FOR POT LUCK - EACH PERSON BRINGS PART OF A MEAL.
- COOK ENOUGH PORTIONS OF FOOD FOR THE WHOLE WEEK, THESE CAN BE FROZEN.
- MAKE YOUR PLACSETTING ATTRACTIVE BY USING A PLACEMAT, PERHAPS EVEN FRESHLY CUT FLOWERS.
- MUSIC, T.V. OR THE RADIO ARE GOOD COMPANIONS
- TAKE YOUR MEAL OUT OF DOORS ON A PLEASANT DAY.
- TAKE A SHORT WALK BEFORE YOUR MEAL TO PERK UP YOUR APPETITE.
- INVITE A NEIGHBOURHOOD YOUNGSTER IN FOR TEA.



## 5. LONG-ESTABLISHED FOOD HABITS

HABITS CAN DEVELOP FROM THE BEGINNING OF LIFE. AS A PERSON BECOMES OLDER, EATING HABITS BECOME RELATIVELY FIXED.

MAKING CHANGES IS DIFFICULT, EVEN WHEN THE CHANGES ARE FOR BETTER HEALTH. FAMILIAR FOOD PATTERNS SERVE AS A "SECURITY BLANKET" - A WAY OF COPING WITH A LONELY LIFE.

MANY OLDER ADULTS ENJOY TRADITIONAL DISHES BASED ON THEIR ETHNIC BACKGROUND. HOWEVER, NOT ALL OF THESE DISHES PROVIDE A BALANCED DIET. AWARENESS OF ONE'S DAILY NUTRITIONAL NEEDS SUCH AS THOSE EXPLAINED IN THE FOOD GUIDE CAN HELP OLDER ADULTS BALANCE THEIR FOOD INTAKE WHILE STILL ENJOYING THE ETHNIC COMPONENT OF THEIR MEALS.

### SUMMARY

FIVE SOCIAL FACTORS THAT COMMONLY AFFECT THE NUTRITIONAL STATUS OF THE OLDER ADULT ARE: 1) LIMITED INCOME, 2) SUBSTANDARD HOUSING, 3) INADEQUATE TRANSPORTATION, 4) SOCIAL ISOLATION, AND 5) LONG ESTABLISHED POOR FOOD HABITS.

THE MANY SUGGESTIONS MADE IN THIS SECTION TO HELP EITHER OVERCOME OR ADAPT TO THESE FACTORS ARE POSITIVE STEPS TOWARD A MORE HEALTHY DIET.

THE FOLLOWING SECTION WILL PRESENT THE BASIC FOOD GROUPS AND THEIR RELATIONSHIP TO THE NUTRITIONAL STATUS OF THE OLDER ADULT.

## THE BASIC FOOD GROUPS

UPON COMPLETION OF THIS SECTION, YOU WILL BE ABLE TO DESCRIBE THE BASIC FOODS GROUPS, THEIR NUTRIENTS, AND THEIR RELATIONSHIP TO THE NUTRITIONAL STATUS OF THE OLDER ADULT.

## CANADA'S FOOD GUIDE

CANADA'S FOOD GUIDE IS A PLAN WHICH ENABLES INDIVIDUALS TO MEET THEIR NUTRIENT NEEDS BY FOLLOWING A SIMPLE FOOD PATTERN BASED ON THE FOUR FOOD GROUPS. IT IS DESIGNED FOR HEALTHY CANADIANS OF ALL AGES, EXCEPT INFANTS.

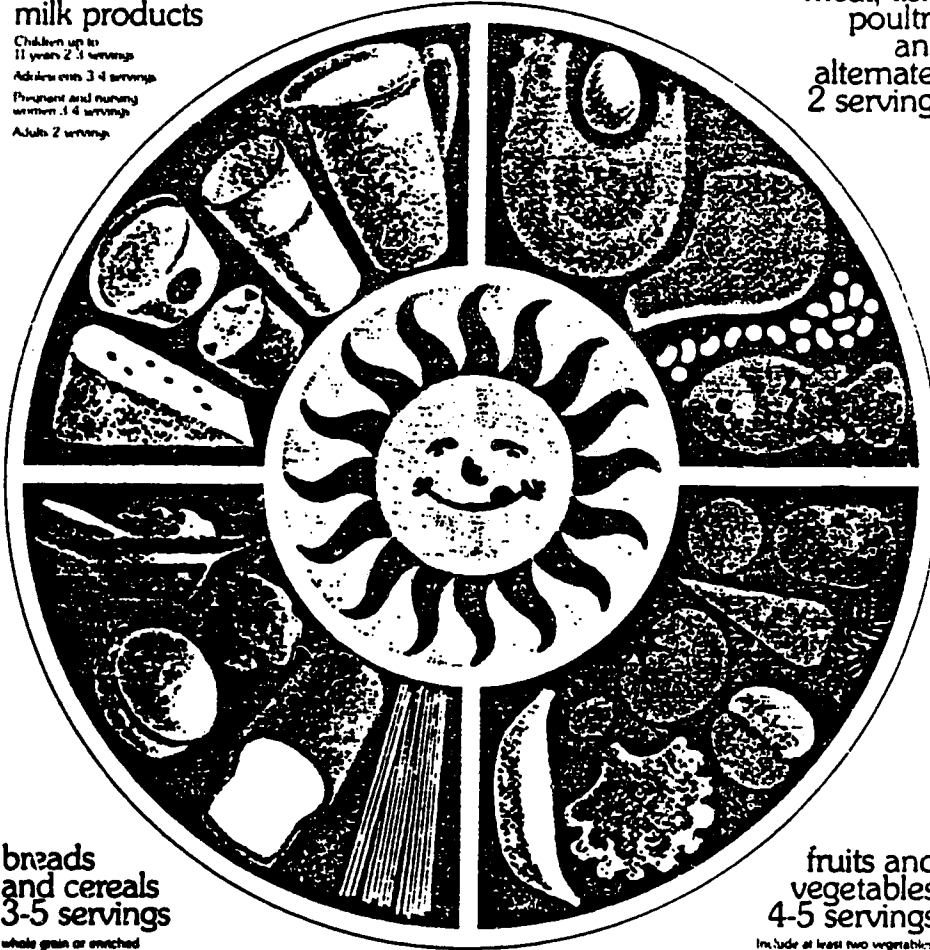
# Eat a variety of foods from each group every day

## milk and milk products

Children up to 11 years 2-3 servings  
Adolescents 3-4 servings  
Pregnant and nursing women 4-5 servings  
Adults 2 servings

## meat, fish, poultry and alternates

2 servings



## bread and cereals

3-5 servings  
whole grain or enriched

## fruits and vegetables

4-5 servings  
include at least two vegetables



Canada

THE FOOD GUIDE GIVES A RANGE FOR THE NUMBER AND SIZE OF SERVINGS. THE EXACT NUMBER AND SIZE OF SERVINGS

IS A MATTER OF INDIVIDUAL CHOICE BASED ON ENERGY NEEDS AND PERSONAL PREFERENCE.

THE KEY PRINCIPLES OF CANADA'S FOOD GUIDE ARE VARIETY, MODERATION AND ENERGY BALANCE. THE DAILY SELECTION OF DIFFERENT FOODS FROM THE FOUR FOOD GROUPS CONTRIBUTE AN ARRAY OF NUTRIENTS AND MAKE FOR A WELL-BALANCED DIET. THROUGH VARIETY, GUIDED BY THE SERVING RECOMMENDATIONS OF CANADA'S FOOD GUIDE, AN INDIVIDUAL CAN OBTAIN THE MORE THAN FIFTY NUTRIENTS NEEDED EVERY DAY.





## FOOD GROUPS

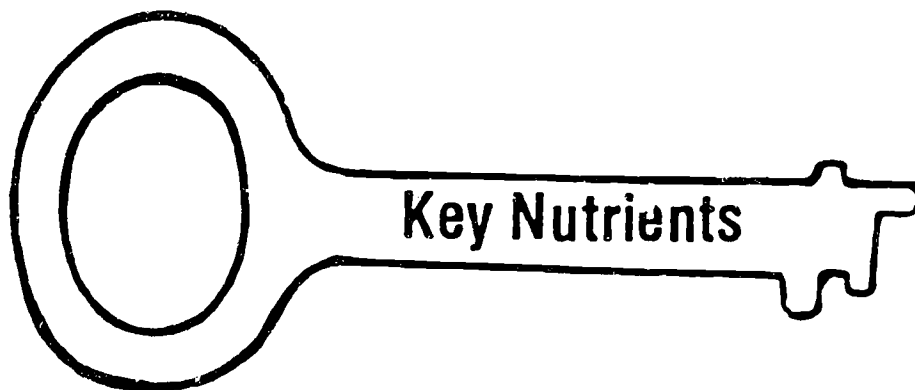
THERE ARE FOUR FOOD GROUPS LISTED IN CANADA'S FOOD GUIDE. THEY ARE: 1. MILK AND MILK PRODUCTS, 2. BREADS AND CEREALS, 3. FRUITS AND VEGETABLES, AND 4. MEAT, FISH, POULTRY AND ALTERNATES. TOGETHER THESE FOUR FOOD GROUPS, CHOSEN BECAUSE OF THE KINDS AND AMOUNTS OF KEY NUTRIENTS THAT EACH CONTRIBUTES, FORM A PATTERN OF SOUND NUTRITION.

EACH FOOD GROUP WILL NOW BE EXAMINED INDIVIDUALLY:  
1) THE MILK AND MILK PRODUCTS GROUP INCLUDES ALL FORMS OF MILK -WHOLE, PARTLY SKIMMED, SKIM, FRESH, EVAPORATED, AND POWDERED MILK. IT ALSO INCLUDES MILK PRODUCTS SUCH AS CHEESE, YOGURT, BUTTERMILK, MILK PUDDINGS, AND ICE-CREAM PRODUCTS.



THE KEY NUTRIENT THAT DETERMINES WHETHER A FOOD BELONGS IN THIS GROUP IS CALCIUM. BUTTER, WHIPPING CREAM, SOUR CREAM, AND SOFT CHEESES, SUCH AS CREAM CHEESES, ARE NOT INCLUDED IN THIS GROUP BECAUSE THESE PRODUCTS ARE HIGH IN BUTTERFAT AND CONTAIN LITTLE CALCIUM PER SERVING.

MILK AND MILK PRODUCTS GROUP



- Calcium
- Riboflavin
- Vitamin A
- Protein
- Vitamin D

THE KEY NUTRIENTS FOUND IN MILK PRODUCTS AID IN:

- A) THE FORMATION AND MAINTENANCE OF STRONG BONES AND TEETH.
- B) NORMAL BLOOD CLOTTING.
- C) GOOD NIGHT VISION AND HEALTHY EYES.
- D) MAINTENANCE OF HEALTHY SKIN AND LINING MEMBRANES.
- E) RELEASING ENERGY TO BODY CELLS DURING METABOLISM.
- F) MAINTENANCE OF A NORMAL NERVOUS SYSTEM.
- G) BUILDING AND REPAIRING BODY TISSUES.
- H) BUILDING ANTI-BODIES TO FIGHT INFECTION.

CANADA'S FOOD GUIDE RECOMMENDS TWO (2) SERVINGS DAILY OF MILK AND MILK PRODUCTS. A SERVING SIZE REFERS TO THE AMOUNT OF CALCIUM THE PRODUCT CONTAINS, NOT THE SIZE OF THE SERVING (E.G. ONE SERVING (1) CHEESE = 1 1/2 OZ. AND ONE SERVING (1) WHOLEMILK = 1 CUP).

SOME FOODS COUNT AS A FRACTION OF A SERVING OF A MILK PRODUCT BECAUSE THEY CONTAIN LESS THAN THE EQUIVALENT OF A CUP OF MILK.

EG. 125 ML ( 1/2 CUP ) MILK PUDDING = 1/2 SERVING MILK PRODUCT.

250 ML ( 1 CUP ) SOUP MADE WITH MILK = 2/3 SERVING MILK PRODUCT.

FROZEN MILK PRODUCTS WHICH ARE RELATIVELY HIGH IN CALORIES, SUGAR AND FAT SHOULD BE CONSUMED IN MODERATION AND ARE OF MINOR IMPORTANCE IN MEETING RECOMMENDED INTAKES OF MILK AND MILK PRODUCTS.

SOME SUBSTITUTES FOR MILK AND MILK PRODUCTS, SUCH AS COFFEE WHITENERS AND WHIPPED TOPPINGS, ARE NOT MADE OF MILK AT ALL AND DO NOT COUNT AS A MILK PRODUCT SERVING. TO DETERMINE IF A FOOD IS A MILK PRODUCT, EXAMINE THE LIST OF INGREDIENTS ON THE PRODUCT LABEL. IF MILK OR MILK SOLIDS IS THE FIRST INGREDIENT, THEN THE FOOD IS A MILK PRODUCT.

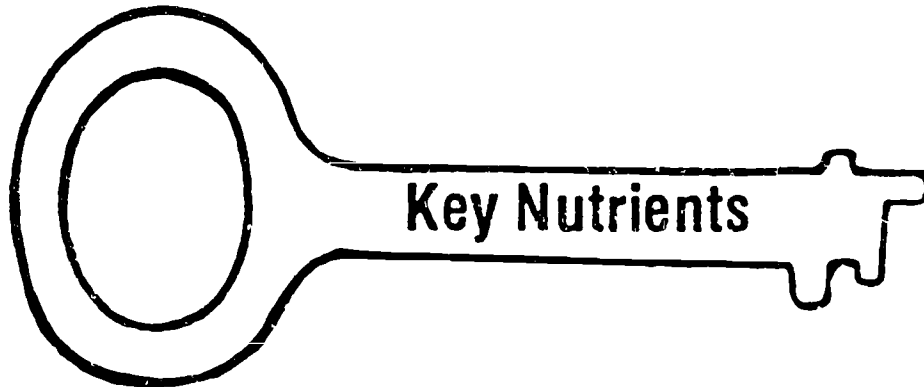
INDIVIDUALS WHO CONSUME NEITHER MILK NOR MILK PRODUCTS SHOULD BE ENCOURAGED TO INCREASE THEIR INTAKE OF LESS FAMILIAR SOURCES OF CALCIUM, SUCH AS SARDINES AND CANNED SALMON WITH BONES, NUTS, UNHULLED SEEDS, BROCCOLI, AND SOY PRODUCTS.

2) THE BREADS AND CEREALS GROUP IS AN IMPORTANT SOURCE OF CARBOHYDRATE, IRON AND SEVERAL B VITAMINS. WHOLE GRAIN PRODUCTS SUCH AS WHOLE WHEAT BREAD, ROLLED OATS, BRAN FLAKES, AND SHREDDED WHEAT ARE RECOMMENDED BECAUSE THEY CONTAIN DIETARY FIBRE. FIBRE ENCOURAGES NORMAL ELIMINATION OF BODY WASTES BY PROVIDING BULK.



THE KEY NUTRIENTS FOUND IN BREAD AND CEREALS ARE:

BREADS AND CEREALS GROUP



The B Vitamins

Thiamin

Riboflavin

Niacin

Iron

Carbohydrates

THE B VITAMINS AID IN THE FOLLOWING:

- A) RELEASING ENERGY FROM CARBOHYDRATES.
- B) NORMAL GROWTH AND DEVELOPMENT.
- C) MAINTAINING THE NORMAL FUNCTION OF THE NERVOUS SYSTEM AND GASTRO - INTESTINAL TRACT.
- D) STIMULATING APPETITE.

IRON IS AN ESSENTIAL PART OF HEMOGLOBIN, THE RED BLOOD CELLS CONSTITUENT, WHICH TRANSPORTS OXYGEN AND CARBON DIOXIDE. CARBOHYDRATES SUPPLY ENERGY AND ASSIST IN THE UTILIZATION OF FATS. CANADA'S FOOD GUIDE RECOMMENDS THREE (3) TO FIVE (5) SERVINGS OF BREAD AND CEREALS EVERY DAY.

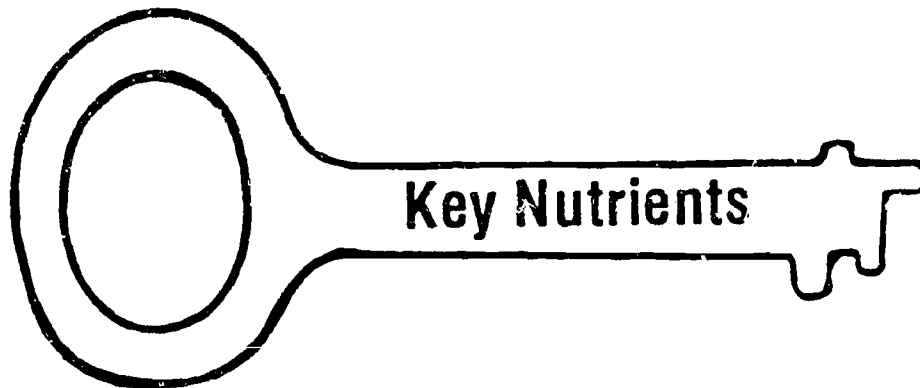
3) THE FRUIT AND VEGETABLE GROUP HAVE BEEN COMBINED TO FORM A SINGLE FOOD GROUP BECAUSE THEY MAKE SIMILAR CONTRIBUTIONS TO THE DIET.





THERE IS A VARIETY OF NUTRIENTS SUPPLIED BY THIS GROUP  
WITH THE TWO (2) MAIN NUTRIENTS BEING VITAMIN A AND C.

FRUITS AND VEGETABLES GROUP



Vitamin A

Vitamin C

Iron

Thiamin

Folic Acid

Carbohydrate

Trace Minerals

Fibre

MAJOR SOURCES OF VITAMIN A ARE THE DARK GREEN,  
YELLOW, AND ORANGE VARIETIES OF VEGETABLES.

VITAMIN A AIDS IN - NORMAL BONE AND TOOTH DEVELOPMENT.

- GOOD NIGHT VISION

- MAINTAINING THE HEALTH OF SKIN AND  
LINING MEMBRANES.

CANADA'S FOOD GUIDE RECOMMENDS AT LEAST TWO (2) SERVINGS OF VEGETABLES EVERY DAY.

VITAMIN C IS NEEDED IN THE DIET EVERY DAY BECAUSE IT IS NOT STORED IN THE BODY. AS VITAMIN C IS A PERISHABLE VITAMIN, FRUITS AND VEGETABLES SHOULD BE HANDLED CAREFULLY TO MAKE THE MOST OF THEIR VITAMIN C CONTENT. TO CONSERVE THE VITAMIN C IN FOOD, ALWAYS COVER AND REFRIGERATE JUICES AFTER OPENING, MINIMIZE THE COOKING TIMES AS SHORT AS POSSIBLE, AND AVOID LOSS IN COOKING WATER BY USING A MINIMAL AMOUNT OF WATER OR BY BAKING OR STEAMING.

VITAMIN C :

- MAINTAINS HEALTHY TEETH AND GUMS.
- MAINTAINS STRONG BLOOD VESSEL WALLS.
- HELPS STRESS REACTIONS.
- HELPS IN FIGHTING FEVERS AND INFECTIONS.
- HELPS DURING THE MAJOR GROWTH PERIODS.

CANADA'S FOOD GUIDE RECOMMENDS FOUR (4) TO FIVE (5) SERVINGS OF FRUITS AND VEGETABLES EVERYDAY. A SERVING CAN BE ANY OF THE FOLLOWING:

- 125 ML (1/2 CUP) VEGETABLES OR FRUITS, FRESH, FROZEN OR CANNED.
- 1 MEDIUM SIZED POTATO, CARROT, GREEN PEPPER, TOMATO, PEACH, APPLE, ORANGE, OR BANANA.

THERE ARE MANY FRUIT FLAVORED BEVERAGES ON THE MARKET: CANNED AND FROZEN DRINKS, SOFT DRINKS, CRYSTALS AND POWDERS. MOST FRUIT FLAVORED BEVERAGES CONTAIN MAINLY SUGAR AND FLAVORING. MANY ALSO CONTAIN ADDED VITAMIN C. THESE PRODUCTS ARE NOT MEMBERS OF THE FRUITS AND VEGETABLES GROUP AND DO NOT COUNT AS A SERVING OF FRUIT JUICE BECAUSE THE ONLY ESSENTIAL NUTRIENT THEY ARE LIKELY TO CONTAIN IS ADDED VITAMIN C. FRUIT JUICE, ON THE OTHER HAND, CONTAINS SMALL AMOUNTS OF MANY VITAMINS AND MINERALS.

FRUITS AND VEGETABLES ARE ALSO GOOD SOURCES OF IRON, ESPECIALLY PEAS, BROCCOLI, PRUNES, RAISINS, APRICOTS, AND POTATOES. AN ADDITIONAL SOURCE OF THIS IMPORTANT NUTRIENT IS FRUIT JUICE, ESPECIALLY PRUNE AND APRICOT.

4) THE FOODS IN THE MEAT, FISH, POULTRY AND ALTERNATES GROUP ARE THE MAJOR SOURCES OF:

1. PROTEIN
2. IRON
3. B VITAMINS- NIACIN, THIAMIN, RIBOFLAVIN AND FOLIC ACID.

CANADA'S FOOD GUIDE RECOMMENDS TWO (2) SERVINGS FROM THIS GROUP EVERY DAY. WHEN INCLUDED WITH THE RECOMMENDED SERVING OF MILK, BREADS AND CEREALS, AN AMPLE INTAKE OF PROTEIN IS ACHIEVED.

PORTION SIZES OF MEAT SHOULD BE KEPT REASONABLE. A SERVING OF COOKED MEAT WEIGHS TWO (2) TO THREE (3) OUNCES. A LARGE STEAK COULD SUPPLY MORE THAN ENOUGH MEAT TO SCORE AS TWO SERVINGS FROM THE MEAT GROUP.

POULTRY, FISH, SKIM MILK, CHEESE AND COTTAGE CHEESE ARE GOOD CHOICES OF LOW FAT ALTERNATES.



TO CONTROL THE AMOUNT AND TYPE OF FAT:

1. Choose lean cuts of meat and trim off visible fat
2. Avoid foods that are deep-fried
3. Poultry, fish, and vegetable protein combinations which are lower in fat should replace meats several times a week
4. Limit the intake of high calorie, high fat desserts such as pies, cookies, cakes, and ice cream

DRIED LEGUMES SUCH AS PEAS, BEANS AND LENTILS ARE PARTICULARLY TASTY, VERSATILE AND INEXPENSIVE MEAT ALTERNATES. OUTSTANDING AMONGST THE LEGUMES IS THE

SOYBEAN WHICH CONTAINS ALMOST TWICE AS MUCH PROTEIN AS OTHER DRIED PEAS AND BEANS.

CHEESE AND EGGS ARE A GOOD SOURCE OF PROTEIN BUT A POOR SOURCE OF IRON. WHEN CHEESE IS A MEAT ALTERNATES SELECTION, OTHER IRON RICH FOODS SUCH AS ENRICHED CEREALS AND BREADS SHOULD BE INCLUDED IN THE DAY'S FOOD CHOICES.

MIXED DISHES ARE A COMBINATION OF SEVERAL FOODS IN A SINGLE DISH. A MIXED DISH COULD BE A CASSEROLE OR PIZZA. SUCH DISHES CAN INCLUDE FOODS FROM ALL OF THE FOUR FOOD GROUPS. THE AMOUNT OF EACH FOOD GROUP IN THE DISH WILL DETERMINE THE PROPORTION OF A SERVING FROM EACH FOOD GROUP PRESENT.

### SUMMARY

EACH OF THE FOUR FOOD GROUPS IS AN ESSENTIAL AND VALUABLE PART OF CANADA'S FOOD GUIDE AND TOGETHER THEY WORK TO MEET THE NUTRIENT NEEDS.

IN RELATING THE FOOD GUIDE TO AN OLDER ADULT, IT IS IMPORTANT TO REMEMBER THAT THE NUTRIENT NEEDS DO NOT CHANGE WITH ONE'S AGE. DUE TO THE AGING PROCESS HOWEVER, ONE'S ENERGY LEVEL HAS CHANGED AND SO, THE PORTIONS OF FOOD FROM EACH GROUP MUST BE MODIFIED ACCORDINGLY, ESPECIALLY THOSE HIGH IN CALORIC CONTENT SUCH AS THE HIGH ENERGY FOODS.

THE FOLLOWING SECTION MAKES SUGGESTIONS ABOUT DIETARY ADJUSTMENTS THAT ARE NECESSARY IN VIEW OF EXISTING ILLNESSES.

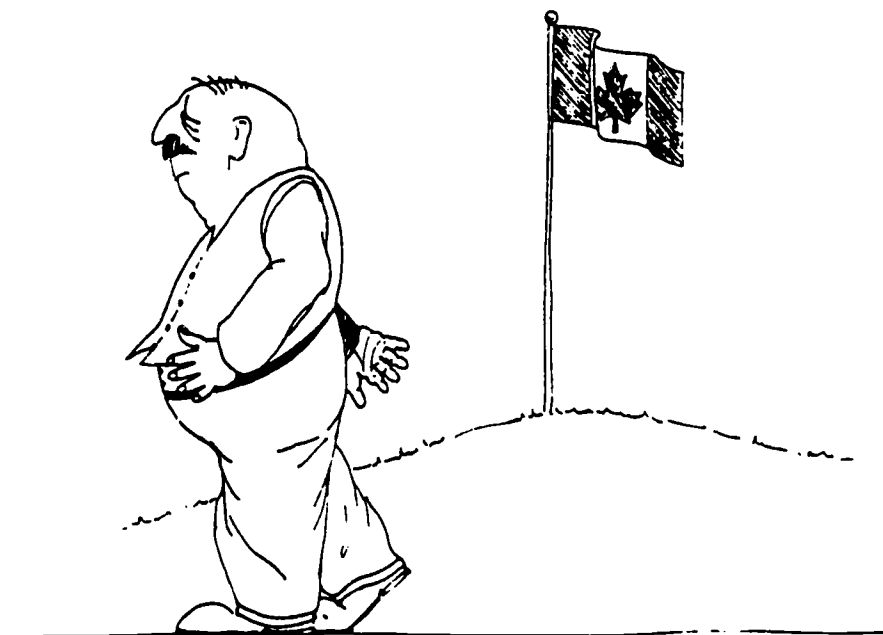
## NUTRITION AND CHRONIC HEALTH CONDITIONS

UPON COMPLETION OF THIS SECTION, YOU WILL BE AWARE OF THE DIETARY NEEDS OF AN OLDER ADULT WITH A CHRONIC HEALTH CONDITION AND HOW DIET CAN AFFECT A CHRONIC HEALTH CONDITION.

A CHRONIC HEALTH CONDITION IS ONE THAT USUALLY DEVELOPS AND CONTINUES OVER A LONG PERIOD OF TIME. THE CONDITIONS DISCUSSED IN THIS MODULE ARE OBESITY, HEART DISEASE, DIABETES, CONSTIPATION, AND OSTEOPOROSIS.

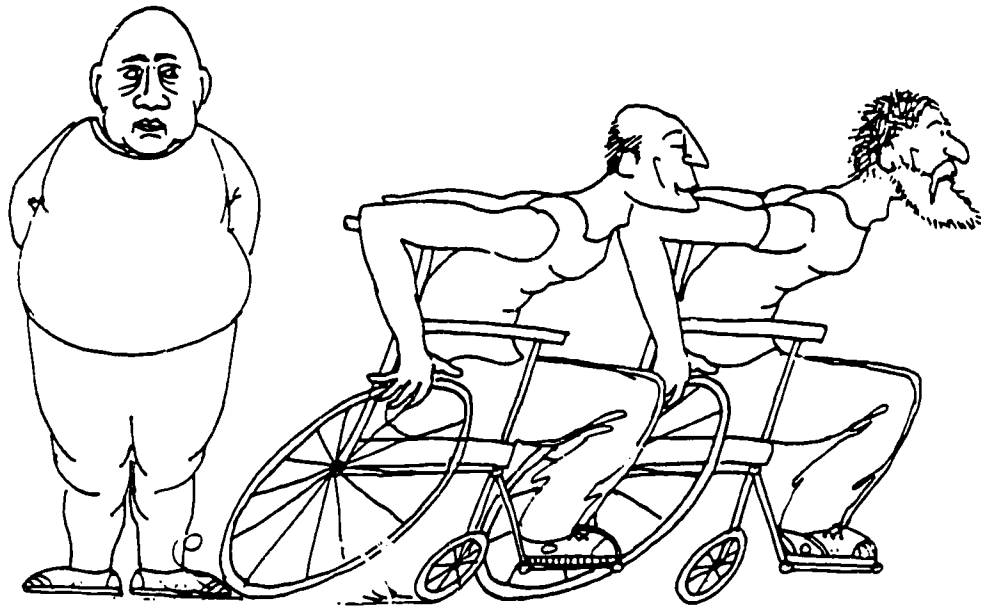
## OBESITY

STATISTICS SHOW THAT 50% OF CANADIAN ADULTS ARE AT LEAST 10% ABOVE THEIR IDEAL WEIGHT. BEING OVERWEIGHT IS A CHRONIC CANADIAN PROBLEM.



OBESITY DOES NOT HAPPEN OVERNIGHT. IT IS RELATED TO THE INABILITY OF BEING ABLE TO BALANCE ENERGY INTAKE AND ACTIVITY OUTPUT. THIS BALANCING CONCEPT AS RELATED TO AN OLDER ADULT HAS BEEN DISCUSSED EARLIER IN THIS MODULE.

OBESITY IS ESPECIALLY A RISK FOR OLDER ADULTS. THEIR LIFETIME CALORIC INTAKE HABITS ARE HARD TO CHANGE, DESPITE THE CHANGES IN THEIR ENERGY OUTPUT. ILLNESS AND HANDICAP MAY FURTHER LIMIT MOBILITY AND ACTIVITY. THE RESULTING OBESITY POSES A HIGH RISK FOR HEART DISEASE AND DIABETES.





IT IS IMPORTANT TO RECOGNIZE THE REASONS WHY AN OLDER ADULT IS OBESE. METABOLIC CHANGES, PHYSICAL DISABILITY, STRESS, BOREDOM AND LONELINESS ALL PLAY A PART IN THE PROBLEM. FOOD IS SOMETIMES VIEWED AS A COMFORTING AGENT AND IS OFTEN USED AS A WAY OF COMPENSATING FOR THE DAILY STRESSES OF LIVING. FOR AN OLDER ADULT WHO MAY BE UNDERGOING A LOT OF STRESSFUL OR WORRISOME EXPERIENCES, FOOD CAN BECOME A SOLACE. ONCE USED AS SUCH, IT CAN BECOME HABIT FORMING. THE ADDITIONAL CALORIES SOON BECOME EVIDENT, RESULTING IN OBESITY.

### HEART DISEASE

THE GENERAL TERM HEART DISEASE INVOLVES TWO CONDITIONS:

- 1) HIGH BLOOD PRESSURE.
- 2) HIGH BLOOD CHOLESTEROL.

1) BLOOD PRESSURE IS THE AMOUNT OF FORCE REQUIRED TO CIRCULATE THE BLOOD THROUGHOUT THE BODY. IN CERTAIN PEOPLE, BLOOD PRESSURE IS HIGHER THAN NORMAL. ALTHOUGH THE CAUSE IS UNKNOWN, HIGH BLOOD PRESSURE SEEMS TO BE ASSOCIATED WITH BEING OVERWEIGHT. HIGH SALT INTAKE MAY ALSO HAVE AN AFFECT ON BLOOD PRESSURE. ALTHOUGH BLOOD PRESSURE MAY RISE AT ANY AGE, IT IS MORE COMMON IN OLDER PEOPLE.

WITH INCREASED BLOOD PRESSURE THERE IS A GREATER FORCE PLACED ON THE WALLS OF THE BLOOD VESSELS. HIGH BLOOD PRESSURE, OR HYPERTENSION AS IT IS OFTEN CALLED, CAN AFFECT MANY PARTS OF THE BODY -- THE BRAIN, THE EYES, THE HEART AND THE KIDNEYS IN PARTICULAR. STROKES AND HEART ATTACKS ARE TWO POTENTIAL RESULTS OF HIGH BLOOD PRESSURE.

TO PREVENT HIGH BLOOD PRESSURE:

- A) MAINTAIN A NORMAL WEIGHT.
- B) SELECT THOSE FOODS THAT ARE LOW IN SALT CONTENT.
  - READ LABELS CAREFULLY TO IDENTIFY PROCESSED FOODS THAT HAVE ADDED SALT OR CONTAIN SODIUM COMPOUNDS ADDED BY THE MANUFACTURER. REMEMBER, MOST PRESERVATIVES HAVE SODIUM IN THEM.
  - AVOID SALTED SNACK FOODS SUCH AS PRETZELS, CHIPS, PICKLES, CRACKERS, SALTED POPCORN.
  - USE YOUR OWN MIX OF HERBS AND SPICES, RATHER THAN COMMERCIAL SEASONING MIXES.
  - ADD DILL, LEMON, OR PARSLEY TO FOODS, RATHER THAN SALT.
  - TRY COOKING VEGETABLES WITHOUT SALT. RE-EDUCATE THE TASTE BUDS.
- C) STICK TO FRESH FOODS.

IT TAKES A LITTLE IMAGINATION TO MAKE MEALS THAT ARE NUTRITIOUS AND TASTY BUT IT IS CERTAINLY WORTH THE EFFORT.

2) AS PEOPLE AGE, THE AMOUNT OF CHOLESTEROL, (A FAT IN THE BLOOD), INCREASES. ONE OF THE REASONS FOR THIS CHANGE MAY BE RELATED TO DIET. WHEN PEOPLE EAT TOO MUCH FAT AND IN PARTICULAR TOO MUCH SATURATED FAT, IT SEEMS TO CAUSE THE BLOOD CHOLESTEROL TO RISE. THE FAT MAY BE DEPOSITED ON THE INNER LININGS OF BLOOD VESSELS CAUSING THEM TO NARROW. IF THIS FAT BUILD-UP IS TOO GREAT, BLOOD SUPPLY MAY BE CUT OFF, RESULTING IN A HEART ATTACK OR STROKE.

THERE ARE DIFFERENT KINDS OF FAT, DEPENDING ON THE SOURCE. SATURATED FATS ARE THOSE FATS THAT ARE USUALLY SOLID AT ROOM TEMPERATURE. THEY ARE FOUND MAINLY IN FOODS FROM ANIMALS SUCH AS MEATS AND DAIRY PRODUCTS. SOME VEGETABLE FATS SUCH AS COCONUT OIL, PALM OIL AND CHOCOLATE ARE ALSO SATURATED FATS. COCONUT IS THE MAJOR COMPONENT OF NON-DAIRY COFFEE WHITENERS AND WHIPPED TOPPINGS. PALM OIL IS IN MANY COMMERCIALY PROCESSED FOODS. CHECK LABELS CAREFULLY FOR SOURCES OF THESE FATS.

POLYUNSATURATED FATS ARE USUALLY LIQUID AT ROOM TEMPERATURE AND COME PRIMARILY FROM PLANTS. SOME POLYUNSATURATED FATS ARE REQUIRED IN THE DIET TO MAINTAIN GOOD HEALTH. GOOD SOURCES INCLUDE SALAD OILS MADE FROM CORN, SAFFLOWER, SUNFLOWER AND SOY. SOME MARGARINES WITH SPECIAL LABELS INDICATING THAT THEY HAVE 35 PERCENT OR MORE POLYUNSATURATES ARE ALSO GOOD SOURCES.

SOME FAT IS NECESSARY IN THE DIET TO SUPPLY ENERGY AND AID IN THE ABSORPTION OF FAT SOLUBLE VITAMINS A,D,E, AND K. HOWEVER, TO REDUCE THE RISK OF HEART DISEASE FROM HIGH BLOOD CHOLESTEROL, SELECT A DIET LOW IN TOTAL FATS AND SATURATED FATS AND INCLUDE A SOURCE OF POLYUNSATURATED FATS.

### DIABETES

DIABETES IS A SERIOUS CHRONIC HEALTH PROBLEM AFFLICTING PEOPLE OF ALL AGES. IT IS RELATED TO THE BODY'S USE OF CARBOHYDRATES WHICH ARE SUGARS AND STARCHES USED FOR ENERGY AND GROWTH. IN ORDER FOR THE CARBOHYDRATES TO BE USED, THE BODY MUST HAVE AVAILABLE INSULIN. INSULIN IS A HORMONE PRODUCED IN THE PANCREAS. IT HAS THREE IMPORTANT JOBS. 1) IT HELPS THE BODY CELLS RECEIVE GLUCOSE (CARBOHYDRATES) AND USE IT FOR ENERGY; 2) IT HELPS THE BODY STORE ANY EXCESS GLUCOSE FOR FUTURE NEEDS; AND 3) IT HELPS THE BODY RELEASE THE STORED GLUCOSE BACK INTO ACTIVE SERVICE. WITHOUT INSULIN, THE BODY IS UNABLE TO USE FOOD FOR ENERGY AND UNABLE TO FUNCTION.

THERE ARE TWO TYPES OF DIABETES. THE PERSON WITH INSULIN-DEPENDENT DIABETES IS UNABLE TO PRODUCE ANY INSULIN AND THEREFORE UNABLE TO UTILIZE THE GLUCOSE FLOATING IN THE BLOODSTREAM. DIGESTION HAS OCCURRED BUT IT CANNOT BE METABOLIZED (USED). INSULIN MUST THEN BE

INJECTED INTO THE BODY TO HANDLE THE DAY'S WORTH OF FOOD.

THE NON-INSULIN-DEPENDENT DIABETIC IS ABLE TO PRODUCE SOME INSULIN. THIS TYPE OF DIABETIC IS USUALLY OVERWEIGHT. OBESITY CAUSES THE BODY CELLS TO BE LESS RECEPTIVE TO THE INSULIN. THE GLUCOSE THEN REMAINS IN THE BLOODSTREAM BECAUSE THE BODY ISN'T ABLE TO USE IT PROPERLY. WEIGHT LOSS ENABLES THE BODY CELLS TO REGAIN THEIR ABILITY TO RECEIVE THE INSULIN AND THEN USE (METABOLIZE) GLUCOSE. AN INSULIN INJECTION IS NOT NEEDED.

THERE ARE OBVIOUSLY TWO VERY DIFFERENT METHODS OF CARING FOR THE TWO TYPES OF DIABETICS.

THE INSULIN DEPENDENT DIABETIC NEEDS A CAREFUL BALANCING OF ACTIVITY, FOOD INTAKE, AND INSULIN INJECTION. IT IS A LIFELONG CONDITION AS THE PANCREAS WILL NEVER "FIRE UP" AGAIN. MANY OLDER DIABETICS HAVE HEALTH PROBLEMS RELATED TO LONG-TERM DIABETES. TO TRY TO KEEP THESE PROBLEMS AT BAY, THEIR DIET MUST BE CAREFULLY PLANNED.

THE NON-INSULIN DIABETIC NEEDS A THOROUGH WEIGHT-REDUCTION PROGRAM. IF THIS IS SUCCESSFUL, OFTEN THE OTHER PROBLEMS CAN BE CONTROLLED.

THE DIABETIC CAN ENJOY A VARIED AND NUTRITIOUS DIET. IT SHOULD BE KNOWN HOWEVER THAT SPUR-OF-THE MOMENT SNACKS SUCH AS PIZZA OR FISH AND CHIPS ARE NOT AS EASILY TOLERATED BY A DIABETIC AS ONE WHO IS NOT AFFLICTED BY

THIS DISEASE. ANY VARIATIONS OF A NORMAL DIET MUST BE CAREFULLY CONSIDERED AND PLANNED FOR.

### CONSTIPATION

DIETARY FIBRE IS OFTEN ONE OF THE MOST OVERLOOKED PARTS OF A DIET. ESSENTIALLY, FIBRE IS THE INDIGESTIBLE PART OF PLANTS THAT WE EAT. BEING RESISTANT TO DIGESTION ALLOWS FIBRE TO ADD BULK OR ROUGHAGE TO THE DIGESTED MATERIAL AS IT PASSES THROUGH THE INTESTINE. THIS SPEEDS UP THE FAECAL WASTE ELIMINATION PROCESS AND HELPS AVOID DIGESTIVE TRACT DISORDERS.

THE PROBLEM OF CONSTIPATION AS A CHRONIC HEALTH PROBLEM IN OLDER PEOPLE IS OFTEN CAUSED BY A COMBINATION OF FACTORS-- LACK OF DIETARY FIBRE, LACK OF REGULAR EXERCISE, LACK OF FLUIDS, STRESS, DISEASE, OVERUSE OF LAXATIVES AND CERTAIN MEDICATIONS. IF THERE ARE NO MEDICAL COMPLICATIONS, OFTEN READJUSTMENT OF ONE'S DIET HELPS IN OVERCOMING THIS PROBLEM.

FOR EXAMPLE:

- EATING AT REGULAR TIMES;
- INCREASING FLUID INTAKE;
- INCREASING INTAKE OF FRUITS AND VEGETABLES;
- CHOOSING WHOLE GRAIN BREADS AND CEREALS;
- ADDING WHOLE BRAN TO FOODS;
- KEEPING AS PHYSICALLY ACTIVE AS POSSIBLE.

## OSTEOPOROSIS

OSTEOPOROSIS IS A CONDITION IN WHICH THE BONES AND TEETH LOSE CALCIUM AND THE BONES BECOME POROUS. IT LEAVES THE INDIVIDUAL SUBJECT TO EASY FRACTURES FROM THE SLIGHTEST FALL. IT RESULTS FROM LOW SUPPLIES OF CALCIUM, PHOSPHORUS, VITAMIN D AND FLUORIDE OF WHICH MILK IS THE CHIEF SUPPLIER. REGARDLESS OF AGE, ONE NEVER OUTGROWS THE NEED FOR MILK. IN FACT AS ONE GROWS OLDER, ONE SHOULD INCREASE THE DAILY CONSUMPTION OF MILK TO HELP PREVENT THE DEVELOPMENT OF OSTEOPOROSIS.

## SUMMARY

'WE ARE WHAT WE EAT' IS TRUE TO A CERTAIN EXTENT. THE RISK OF CHRONIC HEALTH CONDITIONS SUCH AS OBESITY OR HEART DISEASE IS GREATER IF ONE HAS A HISTORY OF A HIGH SALT AND/OR SATURATED FAT DIET WITHOUT REGULAR ACTIVITY. ON THE OTHER HAND, A HEALTHY WELL-BALANCED DIET AND REGULAR EXERCISE CAN HELP PREVENT THESE CONDITIONS AND THE PROBLEM OF CONSTIPATION. DIET IS AN IMPORTANT METHOD OF TREATMENT FOR ALL OF THESE CHRONIC HEALTH CONDITIONS, ESPECIALLY DIABETES.

THE FOLLOWING SECTION WILL PRESENT THE POSSIBLE AFFECTS DRUGS MAY HAVE ON THE NUTRITIONAL STATUS.

## DRUGS AND NUTRITIONAL STATUS

UPON COMPLETION OF THIS SECTION, YOU WILL BE AWARE OF THE POSSIBLE AFFECTS OF DRUGS ON NUTRITIONAL STATUS AND DIETARY CHOICES.

UP TO NOW, YOU HAVE BEEN READING ABOUT HOW DIET AFFECTS THE NUTRITIONAL STATUS OF AN OLDER ADULT. AS WELL, YOU ALSO KNOW THAT CERTAIN HABITS CAN AFFECT CHRONIC HEALTH PROBLEMS SUCH AS OBESITY, HEART DISEASE, DIABETES AND OSTEOPOROSIS. ANOTHER POINT TO CONSIDER WHEN DISCUSSING NUTRITION STATUS IS THE EFFECT CERTAIN MEDICATIONS AND DRUGS HAVE ON A PERSON'S NUTRITIONAL STATUS. MANY MEDICAL CONDITIONS AFFECTING THE OLDER ADULT POPULATION REQUIRE THE USE OF DRUGS AS PART OF THE TREATMENT.

IN SOME INSTANCES, THE USE OF CERTAIN DRUGS MAY ACTUALLY CONTRIBUTE TO A STATE OF MALNUTRITION.

DRUGS CAN AFFECT ONE'S FOOD INTAKE IN THE FOLLOWING WAYS:

- A) ALTERED TASTE SENSATION;
- B) REDUCED SALIVARY SECRETION;
- C) GASTRIC IRRITATION;
- D) SUPPRESSED OR STIMULATED APPETITE;
- E) ALTERED SENSE OF SMELL.



IN ORDER TO COMPENSATE FOR NUTRITIONAL ALTERATIONS DUE TO DRUG INTAKES, IT IS ADVISABLE TO FIND OUT FROM A PHARMACIST WHAT POSSIBLE SIDE EFFECTS MAY OCCUR FROM ANY DRUGS ONE MAY BE TAKING.

### SUMMARY

GOOD NUTRITION CONSTITUTES AN EXTREMELY IMPORTANT PART IN THE MAINTENANCE OF HEALTH AND WELL BEING. FOR A HEALTHY, BALANCED DIET, IT IS IMPORTANT TO INCORPORATE FOODS FROM EACH OF THE FOUR FOOD GROUPS AS SUGGESTED BY CANADA'S FOOD GUIDE.

### Variety

Choose different kinds of foods from within each group in appropriate numbers of servings and portion sizes.

### Energy Balance

Needs vary with age, sex and activity. Balance energy intake from foods with energy output from physical activity to control weight. Foods selected according to the Guide can supply 2000 - 2500 kcal.

### Moderation

Select and prepare foods with limited amounts of fat, sugar and salt. If alcohol is consumed, use limited amounts.

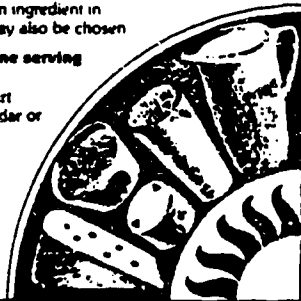
## milk and milk products

Children up to 11 years 2-3 servings  
 Adolescents 3-4 servings  
 Pregnant and nursing women 3-4 servings  
 Adults 2 servings

Skim, 2%, whole, buttermilk, reconstituted dry or evaporated milk may be used as a beverage or as the main ingredient in other foods. Cheese may also be chosen.

**Some examples of one serving**  
 250 mL (1 cup) milk  
 175 mL (¾ cup) yoghurt  
 45 g (1½ ounces) cheddar or process cheese

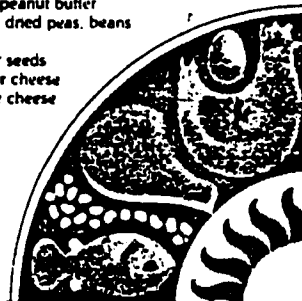
In addition, a supplement of vitamin D is recommended when milk is consumed which does not contain added vitamin D.



## meat, fish, poultry and alternates

### 2 servings

**Some examples of one serving**  
 64 to 90 g (2-3 ounces) cooked lean meat, fish, poultry or liver  
 60 mL (4 tablespoons) peanut butter  
 250 mL (1 cup) cooked dried peas, beans or lentils  
 125 mL (½ cup) nuts or seeds  
 60 g (2 ounces) cheddar cheese  
 125 mL (½ cup) cottage cheese  
 2 eggs

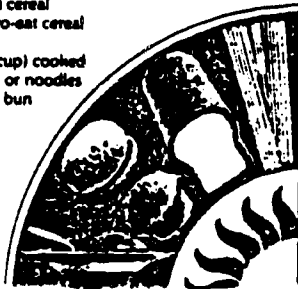


## bread and cereals

### 3-5 servings

whole grain or enriched. Whole grain products are recommended.

**Some examples of one serving**  
 1 slice bread  
 125 mL (½ cup) cooked cereal  
 175 mL (¾ cup) ready-to-eat cereal  
 1 roll or muffin  
 125 to 175 mL (½ - ¾ cup) cooked rice, macaroni, spaghetti or noodles  
 ½ hamburger or wieners bun



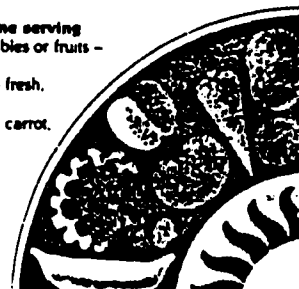
## fruits and vegetables

### 4-5 servings

Include at least two vegetables.

Choose a variety of both vegetables and fruits — cooked, raw or their juices. Include yellow, green or green leafy vegetables.

**Some examples of one serving**  
 125 mL (½ cup) vegetables or fruits — fresh, frozen or canned  
 125 mL (½ cup) juice — fresh, frozen or canned  
 1 medium-sized potato, carrot, tomato, peach, apple, orange or banana



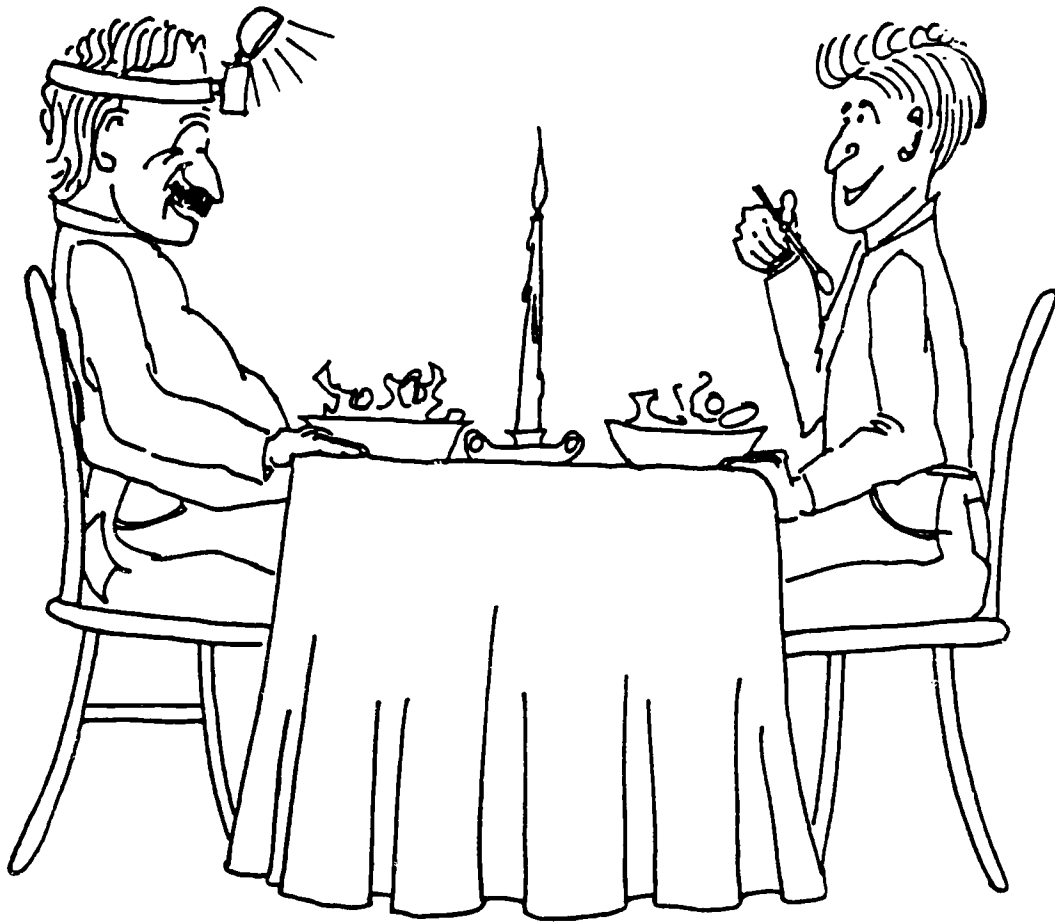
REGULAR EXERCISE ALSO PLAYS A NECESSARY PART IN LEADING A HEALTHY LIFE. AS PEOPLE GROW OLDER, THE TYPES OF ACTIVITY OR EXERCISE THEY DO EACH DAY ALTERS AND SO, THEIR INTAKE IN THE ENERGY FOODS SHOULD BE ADJUSTED ACCORDINGLY. HOWEVER, THEY STILL REQUIRE A BALANCE OF ALL THE FOOD NUTRIENTS.

DIET FOR AN OLDER ADULT NEEDS TO BE ADJUSTED FOR MANY OTHER REASONS, BOTH PHYSICAL AND SOCIAL. SEVERAL PHYSICAL CHANGES OCCUR WITH AGING. THESE ARE:

- 1) DETERIORATION IN EYESIGHT
- 2) DECREASED FLOW OF SALIVA
- 3) CHANGES IN TASTE BUDS

WAYS TO HELP OVERCOME THESE CHANGES AND STILL ENSURE THAT THE MEALS ARE NUTRITIOUS AND ENJOYABLE ARE:

1) ADEQUATE LIGHT- NO GLARE

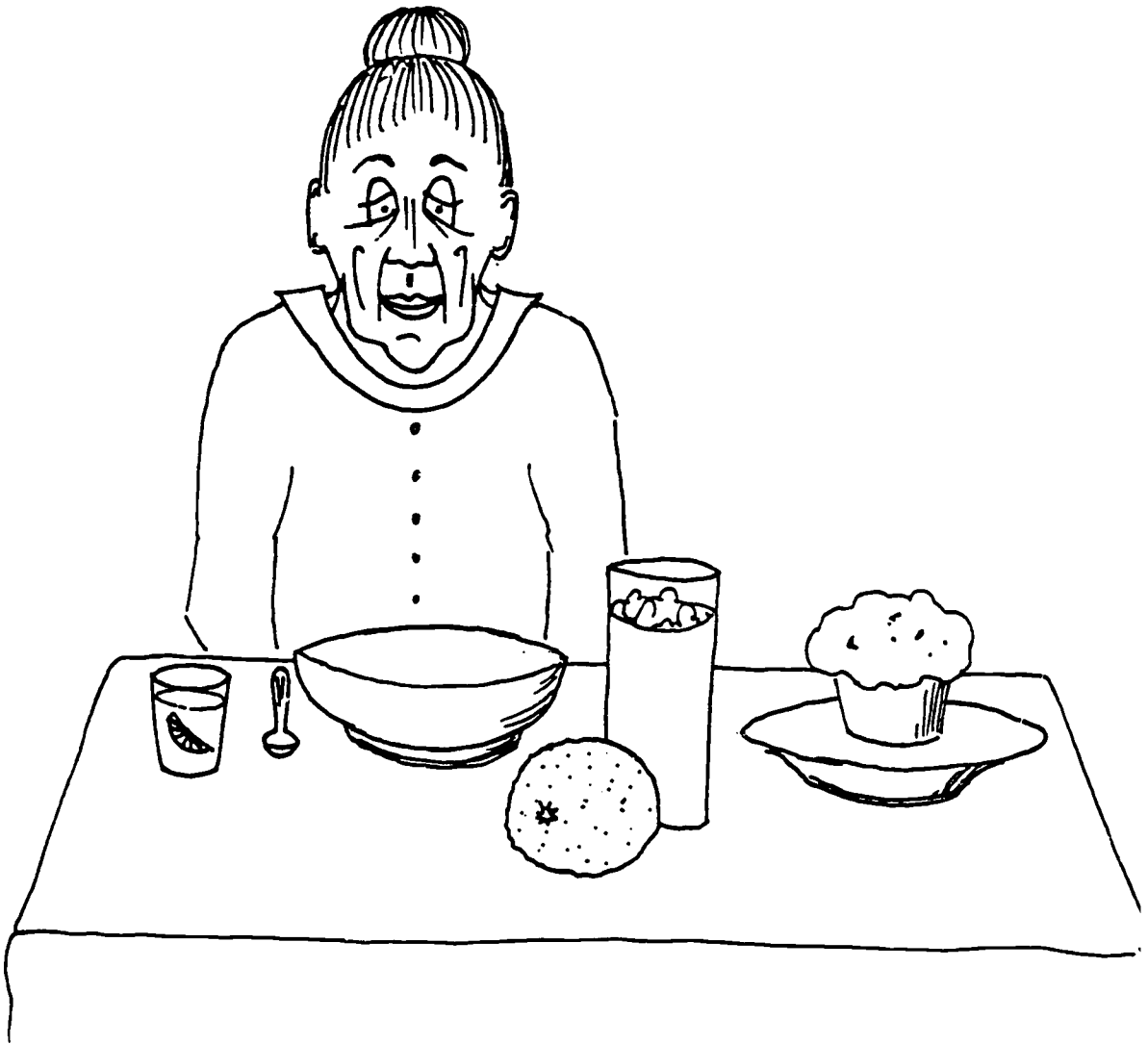


2) COOKING FOODS WITH A HIGH MOISTURE CONTENT, SUCH AS CASSEROLES.

3) USING ALTERNATE HERBS AND SPICES.

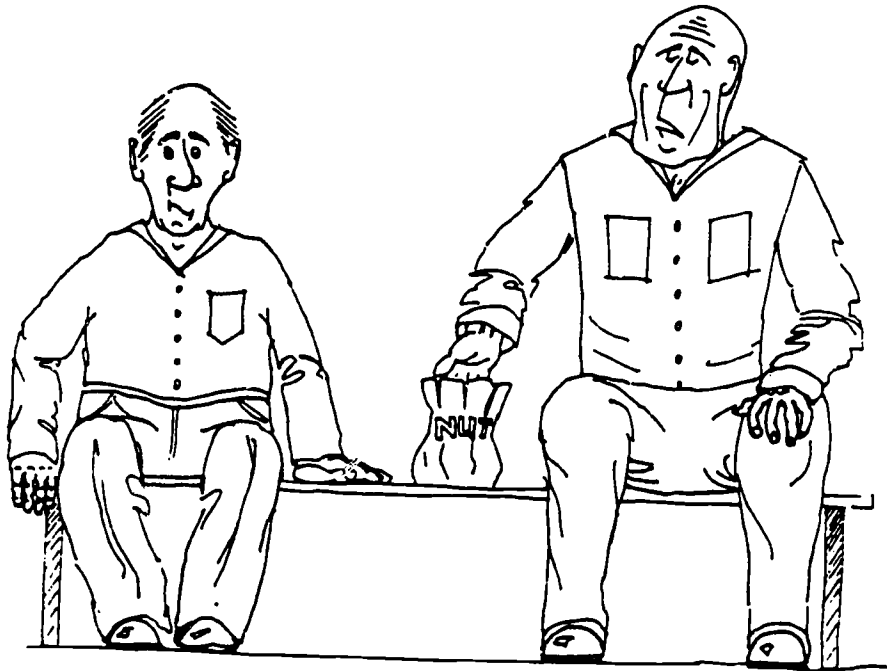


4) EATING SMALLER MEALS MORE FREQUENTLY



IT IS EQUALLY IMPORTANT TO HAVE AN UNDERSTANDING OF THE SOCIAL FACTORS COMMON TO OLDER ADULTS THAT AFFECT THEIR ABILITY TO PURCHASE, PREPARE AND ENJOY NUTRITIOUS MEALS.

- SUCH FACTORS ARE:
1. LIMITED INCOME
  2. SUBSTANDARD HOUSING.
  3. SOCIAL ISOLATION.
  4. LONG ESTABLISHED FOOD HABITS.
  5. INADEQUATE TRANSPORTATION.



DIET ALSO PLAYS AN IMPORTANT PART IN THE TREATMENT AND CONTROL OF MANY CHRONIC HEALTH CONDITIONS.

CONDITION	DIET
1. OBESITY	FOOD INTAKE MUST BE BALANCED WITH ENERGY OUTPUT.
2. HEART DISEASE	EITHER LOW SALT OR LOW SATURATED FAT DIET.
3. OSTEOPOROSIS	ADEQUATE DAILY MILK INTAKE.
4. DIABETES	DIET IS AN IMPORTANT CONTROL MEASURE
5. CONSTIPATION	INCREASED ROUGHAGE AND PLENTY OF FLUIDS.

IF AT ANY TIME YOU REQUIRE FURTHER INFORMATION OR HELP REGARDING NUTRITION AND THE OLDER ADULT, THERE ARE MANY COMMUNITY RESOURCES AVAILABLE.

### CONCLUSION

GOOD NUTRITION IS A NECESSITY OF LIFE. THIS MODULE PROVIDED INFORMATION ON THE NUTRITIONAL REQUIREMENTS OF AN OLDER ADULT IN RELATION TO THEIR PHYSICAL, SOCIAL AND PSYCHOLOGICAL STATUS. CANADA'S FOOD GUIDE WAS UTILIZED TO SHOW HOW A BALANCED DIET COULD BE EASILY DEVELOPED ON A DAILY BASIS. RECOGNIZING THAT THE NEED FOR ALL



NUTRIENTS DOES NOT CHANGE WITH AGING, JUST THE QUANTITY,  
IS A MAJOR STEP IN ENSURING NUTRITIONAL HEALTH.  
EATING PROPERLY MAY NOT BE A GUARANTEE FOR A LONG LIFE,  
BUT IT IS ONE FOR A NUTRITIONALLY HEALTHY ONE!!!!

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## APPENDIX

## SELECTED READINGS

CANADA'S FOOD GUIDE: HANDBOOK. (1982). REVISED, HEALTH AND WELFARE CANADA, PUBLISHED BY AUTHORITY OF THE MINISTER OF NATIONAL HEALTH AND WELFARE, HEALTH PROMOTION DIRECTORATE, MINISTER OF SUPPLY AND SERVICES CANADA.

EAT BETTER FEEL GREAT. (1984). MANITOBA DEPT. OF HEALTH, HOME ECONOMICS DIRECTORATE, FOR FURTHER NUTRITION INFORMATION CONTACT YOUR LOCAL HOME ECONOMIST THROUGH THE DEPT. OF AGRICULTURE IN RURAL AREAS OR THE DEPT. OF HEALTH IN WINNIPEG, BRANDON OR THE NORTH.

LEWIS, CLARA. (1978). NUTRITIONAL CONSIDERATIONS FOR THE ELDERLY. F.A. DAVIS COMPANY.

SHOPPING FOR FOODS AND NUTRITION. MANITOBA DEPT. OF HEALTH RESOURCE CENTER 1ST/2ND FLOOR, 880 PORTAGE AVE., WINNIPEG, MANITOBA, R3P 0G1.

## ADDITIONAL RESOURCES

PLACE: DEPARTMENT OF HEALTH  
HOME ECONOMICS BRANCH  
2ND FLOOR, 880 PORTAGE AVE.  
WINNIPEG, MANITOBA  
R3G 0P1

## NUTRITION FOR SENIORS

CONTAINS A LEADER'S GUIDE, QUIZ, PAMPHLET AND SEVERAL ACTIVITIES TO MOTIVATE SENIORS TO EAT WELL. A REVISED PACKAGE FOR HOME CARE WORKERS THAT WORK WITH SENIOR CITIZENS'. PROGRAM RELEASED IN 1982. ALSO INCLUDES THE FILM - HELP YOURSELF TO BETTER HEALTH. (SEE DESCRIPTION BELOW).

### HELP YOURSELF TO BETTER HEALTH

A 16MM COLOR FILM, 20 MINUTES IN LENGTH, FOR HOME CARE WORKERS THAT WORK WITH SENIOR CITIZENS' WHICH GIVES CLEAR SOUND INFORMATION ON NUTRITION, FOOD BUYMANSHIP, EATING ALONE, ETC.. FOR THE SENIOR CITIZEN. ESTABLISHES A POSITIVE ATTITUDE ABOUT FOOD FOR SENIORS.

### SHOPPING FOR SENIORS

A SLIDE/TAPE SERIES ON FOOD BUYMANSHIP GEARED TO THE NEEDS OF SENIOR CITIZENS. AUDIBLE SIGNAL ONLY. PACKAGE DESIGNED FOR PROFESSIONAL HOME CARE WORKERS.

## ACKNOWLEDGEMENTS

THE ELDERLY SERVICE WORKERS' TRAINING PROJECT WISHES TO EXPRESS APPRECIATION OF THE FOLLOWING INDIVIDUALS WHOSE KNOWLEDGE AND EXPERTISE IN THE AGING SECTOR HAS CONTRIBUTED TO THE OVERALL EFFORT OF THE PROJECT.

### CONTENT ADVISORY COMMITTEE

- MS. MARGARET BARBOUR, RESOURCE SPECIALIST, MANITOBA DEPT. OF HEALTH, CONTINUING CARE.  
MS. DOROTHY HARDY, PERSONNEL SERVICES DIRECTOR, AGE AND OPPORTUNITY CENTRE, INC.  
MS. JOANNE LESTITION-DYSON, DIRECTOR OF SOCIAL WORK, HOLY FAMILY NURSING HOME.  
MS. LYNNE FINEMAN, REGIONAL COORDINATOR, DEPARTMENT OF HEALTH, OFFICE OF CONTINUING CARE.  
MS. VERNA HCLGATE, DIRECTOR, MANITOBA ASSOCIATION OF LICENSED PRACTICAL NURSES.  
DR. JOE KUYPERS, ASSOCIATE PROFESSOR, SCHOOL OF SOCIAL WORK, UNIVERSITY OF MANITOBA.  
MS. DONNA MORRISON, COORDINATOR, GERONTOLOGY COMMUNITY WORKERS PROGRAM.  
MS. MARGARET REDSTON, STANDARDS OFFICER, MANITOBA HEALTH SERVICES COMMISSION, LONG TERM CARE PROGRAMS.  
MS. NICOLE SCHMID, DIRECTOR OF SOCIAL SERVICES, R.S.W. CENTRE HOSPITALIER TACHE NURSING HOME.

### ACTORS AND ACTRESSES

- MS. DORIS BENSON  
MR. WILL DICKSON, DIRECTOR, STUDIO 2 THEATRE GROUP  
MS. MARGARET DOWNIE  
MR. SHELDON FINK  
MS. PRIMROSE HOPKINS  
MS. SHEILA MAURER  
MS. MARIANNE NEILD  
MS. MADGE MURRAY ROBERTS  
MR. JOHN SPENCER  
DR. PETER SPENCER, ASSOCIATE PROFESSOR, FACULTY OF EDUCATION, DRAMA IN EDUCATION, UNIVERSITY OF MANITOBA.

### VIDEO PRODUCTION

PROGRAM PRODUCTIONS COMMUNICATIONS SYSTEMS,  
UNIVERSITY OF MANITOBA

PROJECT STAFF

MR. TOM CHAN  
MS. ELIZABETH DAY  
MR. RANDALL DEMBOWSKI  
MS. MARJORIE FRY  
MR. GERRY GROSSNEGGER  
MR. RAY GUTNICK  
MR. CHRISTOPHER HEAD  
MS. DEBBIE KAATZ  
MR. KELVIN KENT  
MS. VALDIENE McCUTCHEON  
MS. ALEXANDRA PAWLOWSKY  
MR. TIMOTHY RIGBY  
MR. STEPHEN TUNG

LIASON OFFICERS:

MS. KATHIE HORNE, HEALTH PROMOTION DIRECTORATE,  
PROGRAM CONSULTANT  
MR. GARY LEDOUX, HEALTH PROMOTION DIRECTORATE,  
PROGRAM OFFICER

ADDITIONAL TRANSPARENCY SLIDES WERE MADE AVAILABLE BY:

MANITOBA DEPARTMENT OF HEALTH, HOME ECONOMICS  
MANITOBA HEART FOUNDATION

## TITLES OF THE TRAINING PROJECT'S MODULES

### **BLOCK A: BASIC KNOWLEDGE OF AGING PROCESS**

- A.1 PROGRAM PLANNING FOR OLDER ADULTS
- A.2 STEREOTYPES OF AGING
- A.3 HUMAN DEVELOPMENT ASPECTS OF AGING
- A.4 SOCIAL ASPECTS OF AGING
- A.5 PHYSIOLOGICAL ASPECTS OF AGING
- A.6 DEATH AND BEREAVEMENT
- A.7 PSYCHOLOGICAL ASPECTS OF AGING
- A.8 CONFUSION AND THE OLDER ADULT
- A.9 NUTRITION AND THE OLDER ADULT
- A.10 LISTENING AND THE OLDER ADULT

### **BLOCK B: CULTURAL GERONTOLOGY**

- |                                    |                                    |
|------------------------------------|------------------------------------|
| B.1 UKRAINIAN CULTURE              | B.2 GERMAN CULTURE                 |
| B.1.1 COMMUNICATION AND ADJUSTMENT | B.2.1 COMMUNICATION AND ADJUSTMENT |
| B.1.2 COMMUNICATION AND ADJUSTMENT |                                    |
| B.3 FRENCH CULTURE                 | B.4 NATIVE CULTURE                 |
| B.3.1 COMMUNICATION AND ADJUSTMENT | B.4.1 COMMUNICATION AND ADJUSTMENT |
|                                    | B.4.2 COMMUNICATION AND ADJUSTMENT |

### **BLOCK C: WORK ENVIRONMENT**

- C.1 WORK ENVIRONMENT I

**NOTE: MOST MODULE'S ARE AVAILABLE IN TWO FORMATS:**

**A) PRINT FORMAT**

**OR**

**B) INTERACTIVE VIDEO (COMPUTER ASSISTED TELEVISION) FORMAT**

### **RESOURCE MATERIALS:**

**HANDBOOK OF SELECTED CASE STUDIES  
USER'S GUIDE**