

CHAPTER TWENTY FIVE

DEMENTIA AND ALZHEIMER'S DISEASE



DEMENTIA

- IMPAIRMENT OF BRAIN FUNCTION (DECLINE IN INTELLECTUAL FUNCTIONING) THAT INTERFERES WITH ROUTINE DAILY ACTIVITIES.
- MENTAL DISORDERS CAUSED BY CHANGES IN THE BRAIN.
- PATIENTS WITH DEMENTIA ARE CONFUSED AND DISORIENTED (CONFUSED TO PERSON,PLACE OR TIME).
- DEMENTIA IS NOT A NORMAL CHANGE OF AGING.

THERE ARE MANY CAUSES AND TYPES OF DEMENTIA

- ***REVERSIBLE***: MAY BE CAUSED BY VITAMIN DEFICIENCY, METAL POISONING, OR DEPRESSION.
- ***IRREVERSIBLE***: MAY SOMETIMES BE CONTROLLED BY TREATMENTS OR MEDICATION BUT NOT CURED. MULTI-INFARCT DEMENTIA, ALZHEIMER'S DISEASE.
- OTHER ILLNESS OR DISEASES THAT CAN CAUSE DEMENTIA: AIDS, BRAIN INJURIES, TUMORS, INFECTIONS.

MULTI-INFARCT DEMENTIA

IMPAIRMENT OF MENTAL FUNCTION THAT RESULTS FROM MANY SMALL STROKES THAT EACH DESTROY SMALL AREAS OF THE BRAIN.

APPROXIMATELY 20 PERCENT OF ALL DEMENTIAS ARE THIS TYPE

ALZHEIMER'S DISEASE

ALZHEIMER'S DISEASE IS A PROGRESSIVE NERVOUS DISORDER THAT EVENTUALLY DESTROYS ALL MENTAL AND PHYSICAL FUNCTION.

IT IS THE MOST COMMON CAUSE OF DEMENTIA,
AFFECTING OVER 4 MILLION AMERICANS.

(10% OF THE POPULATION)

IT AFFECTS BOTH MEN AND WOMEN OF ALL RACIAL,
ECONOMIC, AND SOCIAL GROUPS.

MOST PEOPLE WITH ALZHEIMER'S DISEASE ARE OVER AGE 65, ALTHOUGH IT CAN AFFECT PEOPLE AS YOUNG AS 40.

THE YOUNGEST CASE RECORDED - 28 YEARS OLD

STATISTICS:

- 65 – 74 YEAR OLDS – 3 % OF POPULATION HAS AD
- 75 – 85 YEAR OLDS – 19 % OF POPULATION HAS AD
- ABOVE AGE 85 – 47 % OF POPULATION HAS AD

FROM ONSET OF SYMPTOMS THE DISEASE CAN LAST
ANYWHERE FROM 3 YEARS TO 20+ YEARS.

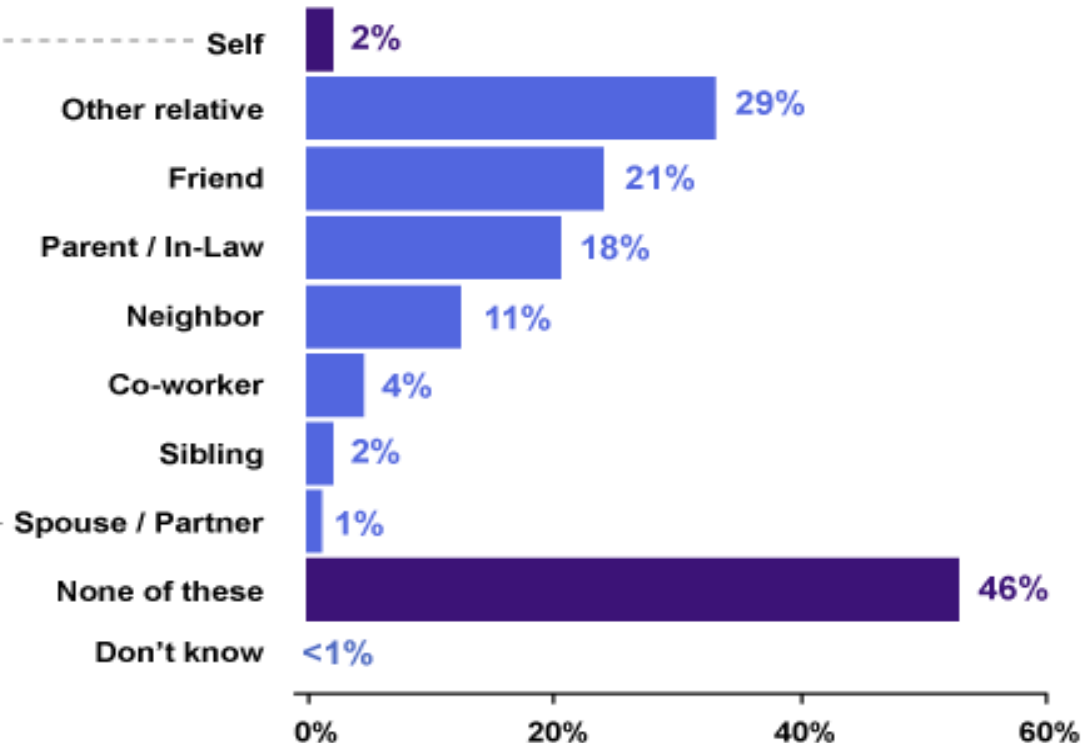
THE AVERAGE LIFE SPAN OF A PERSON WITH AD IS 11
YEARS.

ALZHEIMER'S DISEASE IS A TERMINAL DISEASE

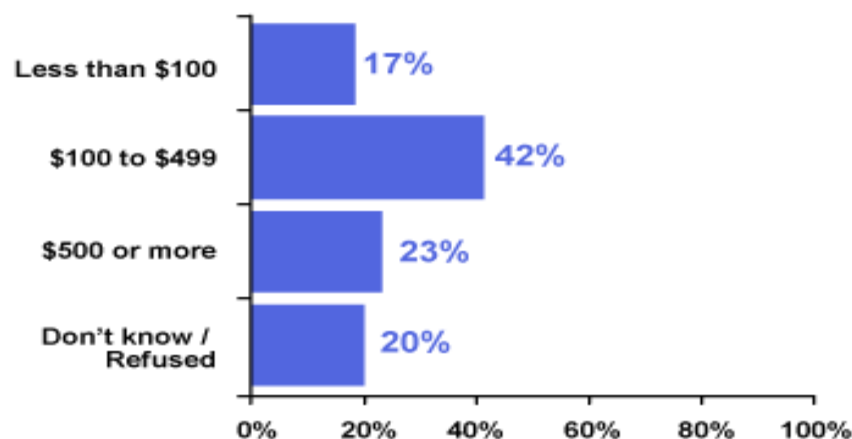
IT IS THE FOURTH LEADING CAUSE OF DEATH IN
AMERICAN ADULTS.

MORE THAN 50 % OF ALL NURSING HOME RESIDENTS
HAVE ALZHEIMER'S DISEASE

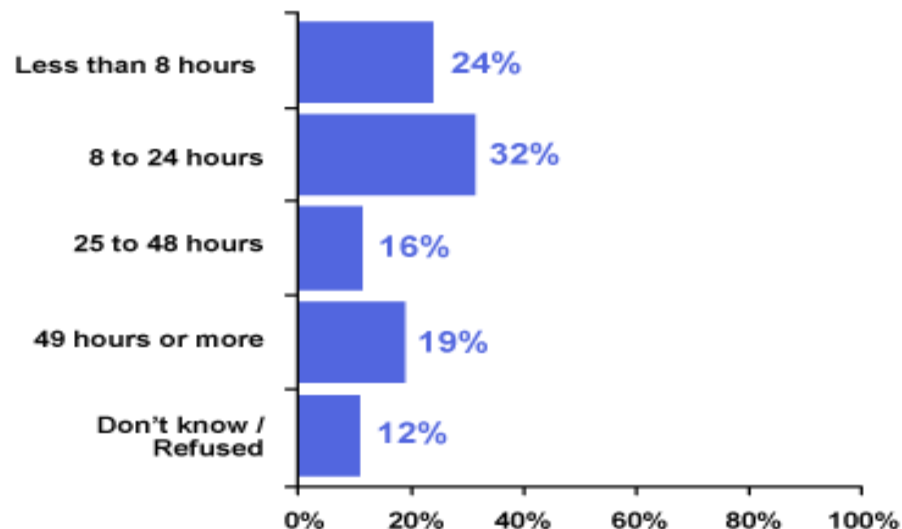
54%
Touched by Alzheimer's
(anyone, including self)



■ Financial Support Provided (Monthly)



■ Care-Giving Support Provided (Monthly)



CAUSE OF ALZHEIMER'S DISEASE

THE CAUSE OF ALZHEIMER'S DISEASE IS NOT KNOWN

DIFFERENT THEORIES

GENETICS

- RESEARCHERS KNOW THAT HAVING A CLOSE RELATIVE WITH AD INCREASES A PERSON'S RISK OF DEVELOPING THE DISEASE

AT AGE 80 A PERSON HAS A 50% RISK OF DEVELOPING AD

- A PERSON WITH 1 PARENT HAVING THE DISEASE HAS A 36% HIGHER RISK
- A PERSON WITH 2 PARENTS HAVING THE DISEASE HAS A 54 % HIGHER RISK

STUDIES HAVE SHOWN THAT PEOPLE WITH FAMILIAL AD
HAVE A DEFECT IN CHROMOSOME 21

CHROMOSOME 21 HAS THE GENE FOR THE
DEVELOPMENT OF THE PROTEIN THAT CAUSES THE
PLAQUES DEPOSITED IN THE BRAIN IN ALZHEIMER'S
DISEASE

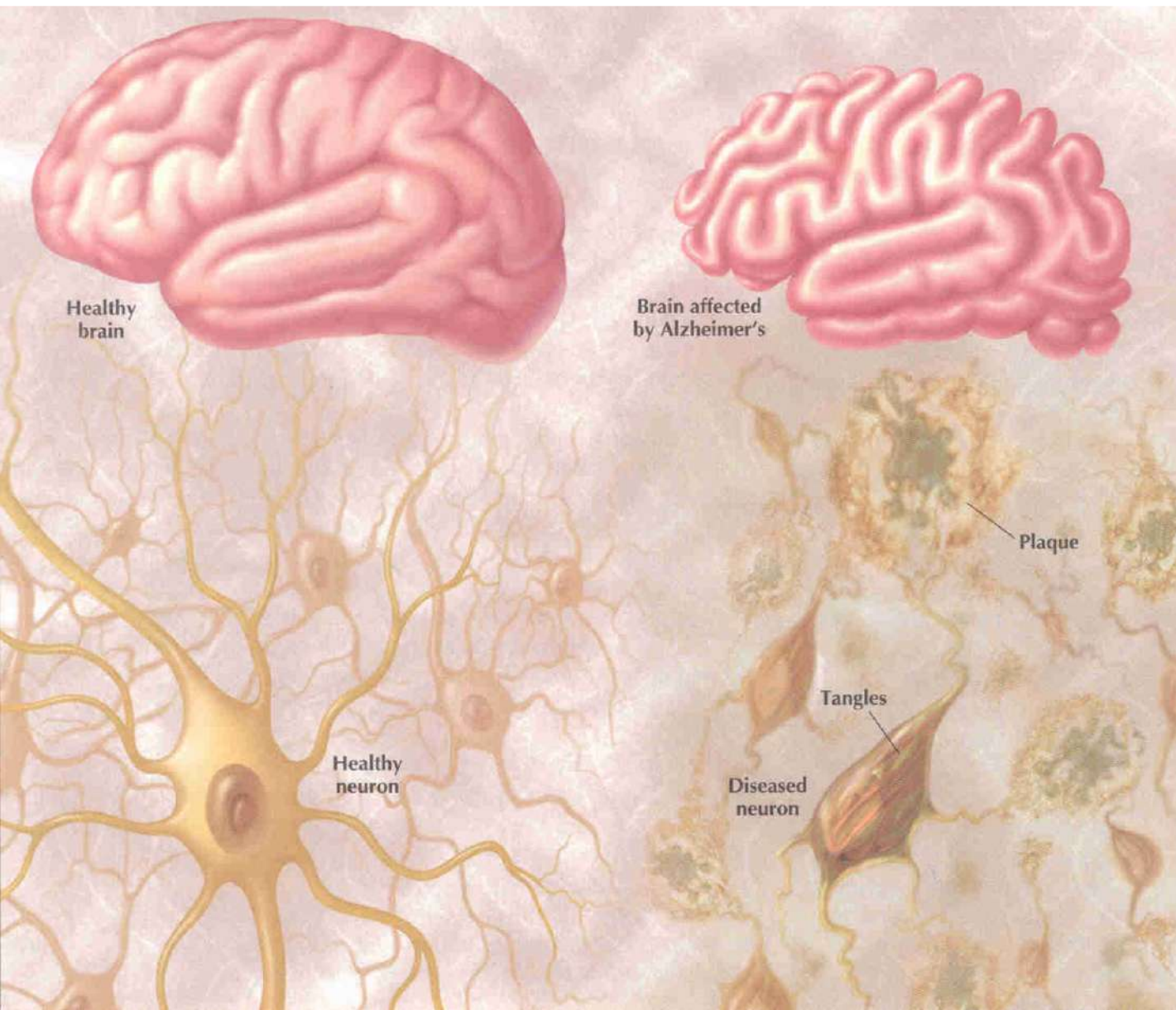
DOWNS SYNDROME ALSO CAUSES A MUTATION IN
CHROMOSOME 21

IF A PERSON WITH DOWN'S SYNDROME LIVES INTO
THEIR 40'S THEY ALMOST ALWAYS DEVELOP
ALZHEIMER'S DISEASE

ENVIRONMENTAL FACTORS

- STUDIES WITH IDENTICAL TWINS SHOW ENVIRONMENT DOES PLAY A PART IN DEVELOPING ALZHEIMER'S DISEASE – RESEARCHERS DO NOT UNDERSTAND WHY OR HOW.
- PEOPLE WHO HAVE SUFFERED HEAD INJURIES (WITH LOSS OF CONSCIOUSNESS) DEVELOP AD AT 3 TIMES THE RATE OF OTHER ADULTS.
- ALUMINUM – RESEARCHERS HAVE DISCOUNTED THE INGESTION OF ALUMINUM SALTS AS A CAUSE OF AD.
- VIRUS – RESEARCH IS BEING DONE TO SEE IF AD IS TRIGGERED BY A HIDDEN VIRUS.
- STUDIES ALSO SHOW THAT THE FOLLOWING FACTORS CAN AFFECT A PERSON'S RISK OF DEVELOPING AD:
THE GEOGRAPHIC AREA WHERE YOU LIVE (HIGHER IN GUAM)
YOUR MOTHER'S AGE AT YOUR BIRTH

STUDIES HAVE SHOWN THAT AD PATIENTS HAVE PHYSICAL CHANGES IN THE BRAIN



LOSS OF BRAIN
CELLS
(NEURONS)



DEVELOPMENT
OF TANGLES
AND PLAQUES



SIGNS AND SYMPTOMS

ALZHEIMER'S DISEASE HAS A GRADUAL ONSET
THE FIRST CLUE IS A CHANGE IN THE PERSON'S
BEHAVIOR

MILD FORGETFULNESS

LEADS TO

PROBLEMS FINDING THE RIGHT WORD

LEADS TO

INABILITY TO RECOGNIZE OBJECTS

LEADS TO

INABILITY TO USE SIMPLE OBJECTS

AT FIRST, THE ONLY SYMPTOM MAY BE MILD
FORGETFULNESS

PEOPLE WITH AD MAY HAVE TROUBLE REMEMBERING:

- RECENT EVENTS
- NAMES OF FAMILIAR PEOPLE
- MATH PROBLEMS

THE PERSON MAY BE ABLE TO HIDE THE PROBLEM FROM
FAMILY AT THIS POINT

IT MAY TAKE MONTHS FOR THE FAMILY TO NOTICE SOMETHING IS WRONG

EVENTUALLY FRIENDS, FAMILY, OR CO-WORKERS START
TO NOTICE THINGS LIKE:

- INCREASING AND PERSISTENT FORGETFULNESS
- MILD PERSONALITY CHANGES
- MINOR DISORIENTATION
- FREQUENTLY LOSES OR MISPLACES FAMILIAR ITEMS
- HAS MILD DIFFICULTIES FINDING THE RIGHT WORD
- HAS MILD DIFFICULTY PERFORMING FAMILIAR TASKS
- DISORIENTATION OF TIME AND PLACE
- POOR OR DECREASED JUDGEMENT
- LOSS OF INITIATIVE
- DIFFICULTIES PERFORMING ARITHMETIC CALCULATIONS

DIAGNOSIS OF ALZHEIMER'S

ALZHEIMER'S DISEASE IS DIAGNOSED BY EXCLUSION

STEPS IN THE DIAGNOSTIC PROCESS

- MEDICAL HISTORY – THE DOCTOR GATHERS PERTINENT MEDICAL INFORMATION (ILLNESS, OPERATIONS, FAMILY HISTORY, NUTRITIONAL AND LIFESTYLE INFORMATION)
- PHYSICAL EXAM – THE DOCTOR PERFORMS A COMPLETE PHYSICAL EXAM
- NEUROLOGICAL EXAMINATION – THE DOCTOR WILL ORDER SPECIAL TESTS SUCH AS A BRAIN SCAN, EEG, OR AN MRI
- PSYCHOLOGICAL EXAMINATION – THE DOCTOR WILL REFER THE PERSON TO A PSYCHIATRIST

- LABORATORY TESTS – THE DOCTOR WILL HAVE LAB WORK DONE TO ELIMINATE OTHER POSSIBLE DISEASES
- EVIDENCE OF CHARACTERISTICS OF ALZHEIMER’S DISEASE – THE DOCTOR WILL LOOK AT THE TIME FRAME FOR THE CONFUSION AND BEHAVIORS OF THE PERSON

IF EVERYTHING ELSE IS RULED OUT THEN THE DOCTOR WILL MAKE THE DIAGNOSIS OF ALZHEIMER’S DISEASE

THE ONLY POSITIVE DIAGNOSIS IS MADE WITH MICROSCOPIC EXAMINATION OF THE BRAIN TISSUE

THIS CAN ONLY BE DONE ON AUTOPSY

STAGES OF ALZHEIMER'S DISEASE

EARLY STAGE

THIS STAGE CAN LAST FOR TWO TO FOUR YEARS

A PERSON IN THIS STAGE MAY BE AWARE OF THE
DIAGNOSIS OR KNOW THAT SOMETHING IS WRONG

A PERSON IN THE EARLY STAGE MAY STILL BE ABLE TO
PARTICIPATE IN DECISIONS AFFECTING THEIR FUTURE

MEDICATIONS GIVEN FOR ALZHEIMER'S DISEASE TRY
TO PROLONG THE EARLY STAGE OF THE DISEASE
RATHER THAN CURE IT

BEHAVIOR ASSOCIATED WITH THE EARLY STAGE

- MILD FORGETFULNESS

NAMES

WHAT HAS BEEN SAID

RECENT EVENTS

- DIFFICULTY PROCESSING NEW INFORMATION

LEARNING NEW THINGS

FOLLOWING CONVERSATIONS

- PROBLEMS WITH ORIENTATION

BECOMES EASILY LOST

TROUBLE FOLLOWING DIRECTIONS

DATE AND TIME



EARLY STAGE



- COMMUNICATION DIFFICULTIES

FINDING THE RIGHT WORDS

USING PROPER GRAMMER

PRONOUNCING WORDS

- DISINTEREST IN GROOMING
- OVERREACTION TO STRESS

MIDDLE STAGE

THIS STAGE MAY LAST FROM TWO TO TEN YEARS

THIS IS THE STAGE WHERE SOME PEOPLE WITH AD
BECOME RESTLESS AND PACE OR WANDER

PEOPLE IN THIS STAGE MAY NEED HELP WITH MANY
DAILY TASKS – DRESSING, BATHING, USING THE TOILET

CAREGIVER MAY HAVE DIFFICULTY AS CARE BECOMES
MORE DIFFICULT

BEHAVIOR ASSOCIATED WITH THE MIDDLE STAGE



- CONTINUED MEMORY LAPSES
- FORGETFULNESS ABOUT PERSONAL HISTORY
- INABILITY TO RECOGNIZE FRIENDS AND FAMILY
- PERSONALITY CHANGES

CONFUSION

ANXIETY

SUSPICIONS

SADNESS/DEPRESSION

HOSTILITY

MIDDLE STAGE



- DECLINING CONCENTRATION ABILITIES

- RESTLESSNESS

PACING

WANDERING

- REPETITION

- DELUSIONS

- AGGRESSION

- ASSISTANCE REQUIRED FOR DAILY TASKS

- APPETITE FLUCTUATIONS

LATE STAGE

THIS STAGE USUALLY LASTS FROM ONE TO THREE
YEARS

THE PERSON WILL NEED 24-HOUR A DAY CARE

THE PERSON WILL EVENTUALLY BECOME BEDRIDDEN
AND BECOME INCONTINENT

BEHAVIOR ASSOCIATED WITH THE LATE STAGE



- LOSS OF ABILITY TO REMEMBER, COMMUNICATE OR FUNCTION
- INABILITY TO PROCESS INFORMATION
- SEVERE DISORIENTATION ABOUT TIME, PLACE AND PEOPLE
- WITHDRAWAL
- MUST USE NON-VERBAL METHODS TO COMMUNICATE
- MAY RESPOND TO MUSIC OR TOUCH
- BECOMES BED-RIDDEN

LATE STAGE



- LOSES ABILITY TO SPEAK
- BECOMES INCONTINENT
- INABILITY TO SWALLOW
- MAY BECOME UNRESPONSIVE (COMA)
- ENDS IN DEATH

MANAGEMENT OF PROBLEM BEHAVIORS



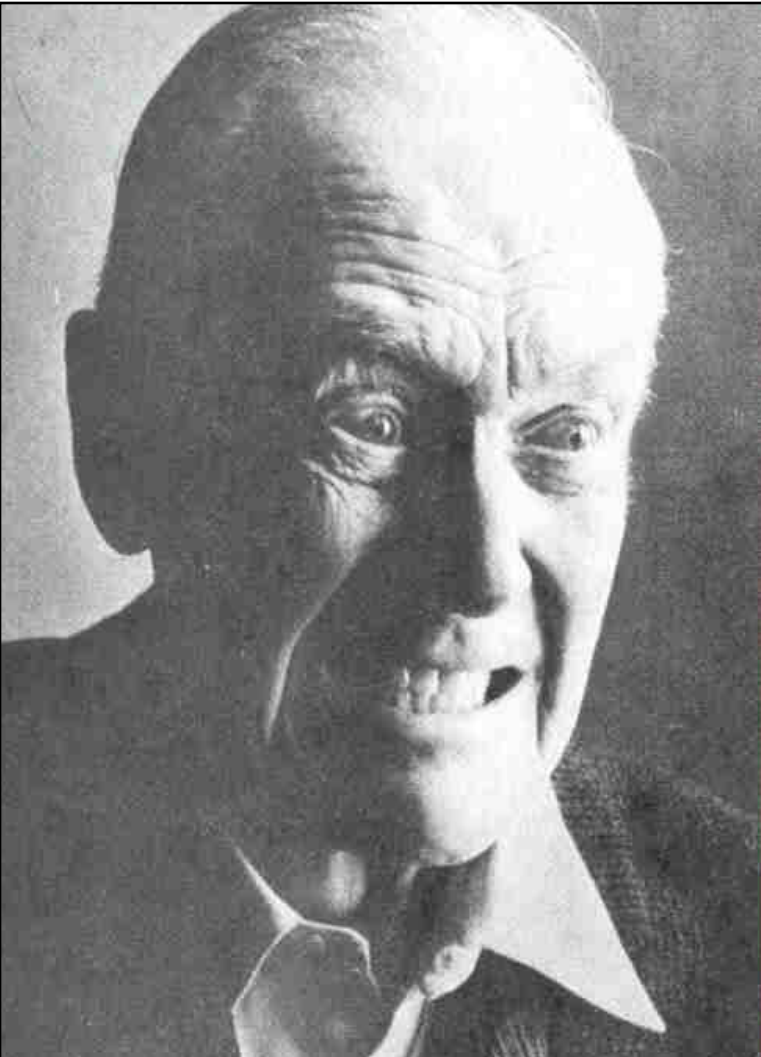
TOUCH IS AN IMPORTANT METHOD OF COMMUNICATING
WITH THE ALZHEIMER PATIENT

WANDERING

- KEEP ENVIRONMENT SAFE
- MAKE SURE PATIENT GETS ENOUGH EXERCISE
- DISTRACT THE PERSON TO ANOTHER ACTIVITY



CASTROPHIC REACTION



- PERSON OVER-REACTS TO A SITUATION BY BECOMING VERY AGITATED, ANGRY, OR EMOTIONAL.
- HAPPENS BECAUSE THE PERSON HAS TOO MUCH STIMULI AT ONE TIME
- TRY TO PREVENT THE PERSON FROM HAVING A REACTION IF AT ALL POSSIBLE

KEEP ENVIRONMENT SIMPLE

DO TASKS IN SMALL STEPS

- STAY CALM YOURSELF
- TRY TO DISTRACT THE PERSON TO ANOTHER ACTIVITY

SUNDOWNER'S SYNDROME

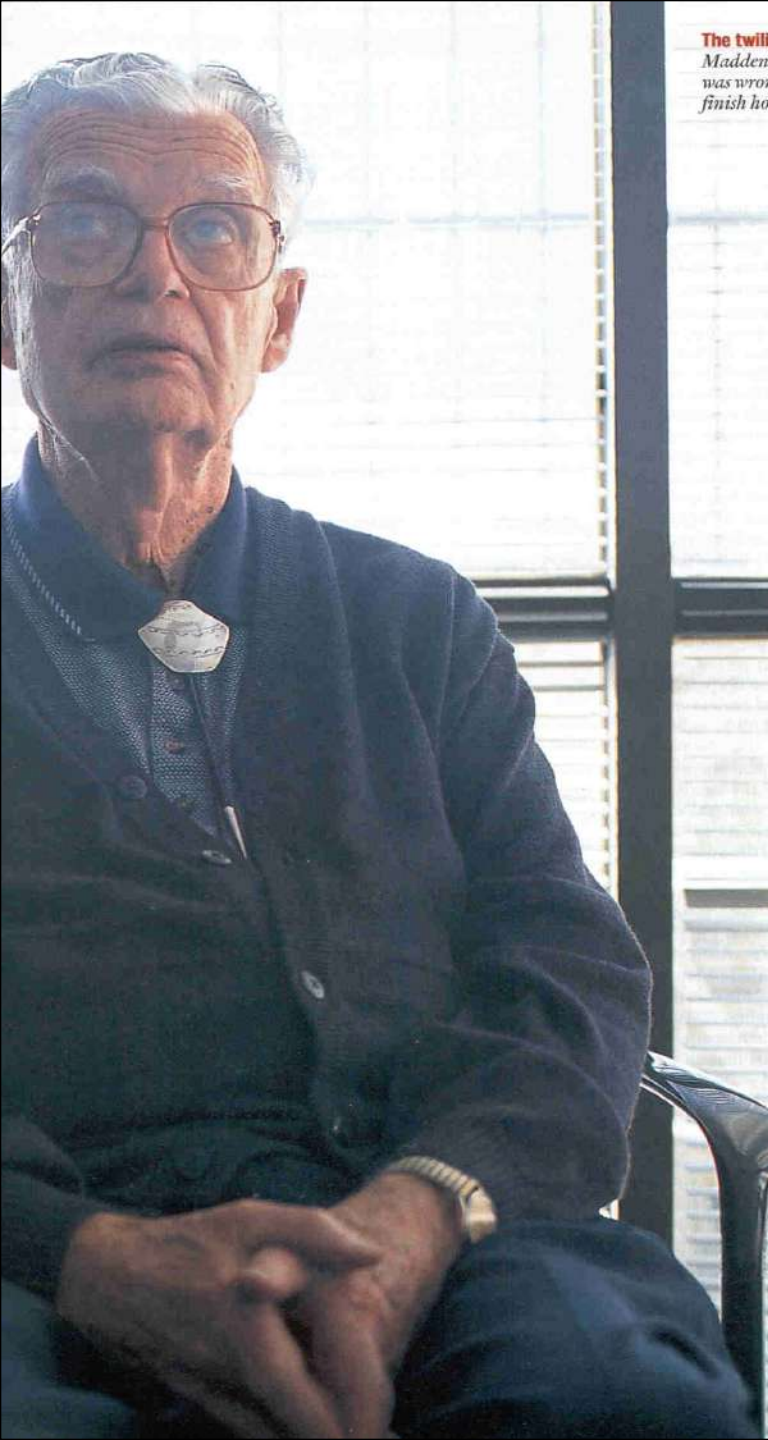
- INCREASE IN PROBLEM BEHAVIOR AS THE SUN SETS IN THE EVENING
- MAY OCCUR BECAUSE THE PATIENT IS TIRED AT THE END OF THE DAY OR THE PERSON MAY BE AFRAID OF THE DARK
- PLAN ACTIVITIES FOR THE EARLY PART OF THE DAY



HOARDING



- PERSON GATHERS ITEMS AND HIDES THEM
- THEY MAY FORGET WHERE THEY PUT THINGS AND ACCUSE ANOTHER PERSON OF STEALING THEM
- IF POSSIBLE HAVE AN EXTRA PAIR OF GLASSES OR HEARING AID
- DISTRACT THE PERSON FROM WORRYING ABOUT THE ITEM SO THEY WILL NOT HAVE A CATASTROPHIC REACTION



DELUSIONS AND HALLUCINATIONS

- DELUSIONS – A FALSE BELIEF
- HALLUCINATIONS – SENSING SOMETHING THAT IS NOT THERE
- AVOID DIRECT CONFRONTATION
- DO NOT AGREE THAT YOU SEE THE HALLUCINATION OR INSIST THAT IT WAS UNREAL
- REASSURE THE PERSON THAT YOU ARE THERE TO CARE FOR HIM/HER

COMMUNICATING



- APPROACH THE PERSON WITH AN OPEN, FRIENDLY, RELAXED MANNER.
- ALZHEIMER PATIENTS WILL MIRROR YOUR BEHAVIOR.
- DO NOT APPROACH FROM BEHIND. AD PATIENTS NEED TO SEE YOUR FACE BEFORE THEY RECOGNIZE THAT YOU ARE SPEAKING TO THEM.
- USE SHORT AND SIMPLE SENTENCES OR QUESTIONS. ASK ONE QUESTION AT A TIME.

- SPEAK IN A LOW PITCH VOICE
- USE NONVERBAL CLUES (GESTURES, FACIAL EXPRESSIONS, POINTING, DEMONSTRATIONS)



GUIDELINES FOR CARE OF PATIENT

- PROVIDE A CALM, QUIET ENVIRONMENT

TO MUCH STIMULATION CAN CAUSE A CATASTROPHIC REACTION

- PROVIDE A CONSISTENT ROUTINE

PERFORM ADLs AT SAME TIME EACH DAY

AVOID CHANGES IN ROUTINE OR ENVIRONMENT

- REASSURE AND EXPLAIN FREQUENTLY

DO NOT ARGUE WITH THE PATIENT

- PROTECT SAFETY

PATIENT AT INCREASED RISK OF ACCIDENTS

- ELIMINATE CAFFEINE FROM THE DIET

GUIDELINES FOR CARE OF THE CONFUSED PATIENT

- PROVIDE ACTIVITIES TO DISTRACT THE PATIENT FROM INAPPROPRIATE BEHAVIOR
- MAINTAIN A REGULAR ROUTINE
- USE PATIENCE AND UNDERSTANDING
- MAINTAIN A CALM, QUIET ENVIRONMENT
- USE SIMPLE, CLEAR WORDS AND SENTENCES
- GIVE FREQUENT PRAISE AND REASSURANCE
- USE TOUCH AND OTHER FORMS OF NONVERBAL COMMUNICATION
- USE REALITY ORIENTATION

REALITY ORIENTATION



HELPS THE CONFUSED PATIENT
WITH REALITY BY FREQUENT
REMINDERS OF :

WHO HE IS

WHERE HE IS

WHAT TIME IT IS

ALWAYS CALL THE PATIENT BY
NAME AND IDENTIFY YOURSELF

REPEAT THE DATE, TIME, AND
PLACE TO THE PATIENT
THROUGHOUT THE DAY.

GUIDELINES FOR CARE OF THE AGGRESSIVE/COMBATIVE PATIENT

- DO NOT RESPOND IN ANGER
- LEAVE AND COME BACK LATER IF POSSIBLE
- BE AWARE OF WARNING SIGNS OF ANGER, SUCH AS MUSCLE TENSION, RESTLESSNESS, PACING, CRYING, AND LOUD SPEECH
- OFFER DISTRACTIONS
- COMMUNICATE AND REASSURE
- BE AWARE OF YOUR NONVERBAL COMMUNICATION
- SIT DOWN, YOU WILL APPEAR LESS THREATENING
- DO NOT TOUCH THE PATIENT WITHOUT HIS PERMISSION