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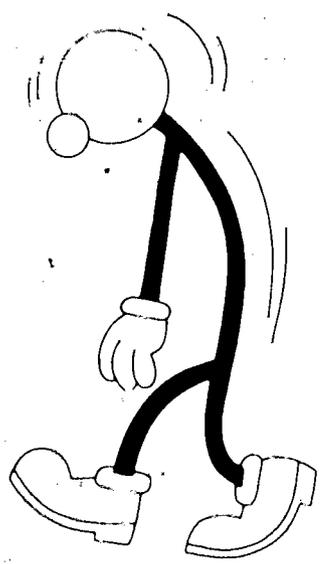
ABSTRACT

This learning activity package on temperature, pulse, and respiration is one of a series of 12 titles developed for use in health occupations education programs. Materials in the package include objectives, a list of materials needed, information sheets, reviews (self evaluations) of portions of the content, and answers to reviews. These topics are covered: temperature, thermometers, taking the temperature, pulse, taking the pulse, respiration, and counting the respirations. (YLB)

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TEMPERATURE, PULSE, AND RESPIRATION



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TEMPERATURE, PULSE, AND RESPIRATION

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1982

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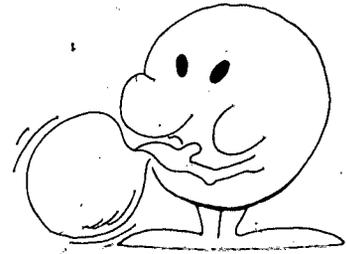
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TEMPERATURE, PULSE, AND RESPIRATION LAP

1

OBJECTIVES

AFTER YOU COMPLETE THIS LAP, YOU WILL BE ABLE TO DO THE FOLLOWING:



1. DEFINE VITAL SIGNS.
2. NAME THREE EXAMPLES OF WHAT COULD DECREASE BODY TEMPERATURE.
3. NAME THREE EXAMPLES OF WHAT COULD INCREASE BODY TEMPERATURE.
4. IDENTIFY THREE TYPES OF CLINICAL THERMOMETERS.
5. NAME THE TWO PARTS OF A CLINICAL THERMOMETER.
6. STATE THREE METHODS FOR TAKING A TEMPERATURE AND EXPLAIN THE DIFFERENCE BETWEEN EACH METHOD.
7. DEMONSTRATE THE CORRECT PROCEDURE FOR TAKING AND RECORDING AN ORAL, RECTAL, AND AXILLARY TEMPERATURE.
8. DEMONSTRATE THE CORRECT PROCEDURE FOR TAKING AND RECORDING A RADIAL AND APICAL PULSE.
9. LIST THE THREE CHARACTERISTICS OF THE PULSE WHICH MUST BE CHARTED.
10. DEFINE THE FOLLOWING TERMS: TACHYCARDIA, BRADYCARDIA, AND ARRHYTHMIA.
11. DEMONSTRATE THE CORRECT PROCEDURE FOR TAKING AND RECORDING A RESPIRATION.
12. STATE THE NORMAL RANGE FOR T-P-R.

MATERIALS NEEDED

THERMOMETER WITH HOLDER
WATCH WITH SECOND HAND

MATERIALS NEEDED (CONTINUED)

- PEN OR PENCIL
- NOTE PAPER
- *WORK SHEETS
- TISSUES (WIPES)
- *GRAPHIC CHART
- *SAMPLE PAGE FROM TPR BOOK

*BEFORE BEGINNING THIS LAP, GET A WORK SHEET AND GRAPHIC CHART FROM THE INSTRUCTOR AND SAMPLE PAGES FROM THE TPR BOOK.

TEMPERATURE, PULSE, AND RESPIRATION ARE REFERRED TO AS "VITAL SIGNS," ALSO KNOWN AS "CARDINAL SYMPTOMS." BLOOD PRESSURE IS ALSO A VITAL SIGN. IT IS MOST IMPORTANT THAT THEY ARE TAKEN AND RECORDED ACCURATELY, AS ANY VARIATION IS AN INDICATION OF CHANGE IN THE PATIENT'S CONDITION. THOSE ATTENDING THE PATIENT DEPEND ON ANY CHANGES IN VITAL SIGNS TO ACCURATELY DIAGNOSE AND TREAT THE PATIENT.

WHEN THE BALANCE OF BODY FUNCTIONS IS DISTURBED BY SUCH THINGS AS EXERCISE, ILLNESS, OR EMOTIONAL STRESS, THE RATE OF HEAT PRODUCTION, BLOOD FLOW, AND BREATHING WILL VARY FROM NORMAL. ANY VARIANCE IN THE VITAL SIGNS MAY BE DISTURBING TO A PATIENT. THEREFORE, YOU SHOULD NEVER TELL THE PATIENT WHAT THEY ARE.* THIS IS THE RESPONSIBILITY OF THE DOCTOR.



ALTHOUGH THE TAKING AND RECORDING OF VITAL SIGNS IS USUALLY A COMBINED PROCEDURE, WE WILL DISCUSS AND LEARN EACH ONE SEPARATELY.

TEMPERATURE, PULSE, AND RESPIRATION ARE COMMONLY REFERRED TO AS TPR.

*IF THE PATIENT ASKS, TELL HIM OR HER THAT YOU, AS A STUDENT, ARE NOT PERMITTED TO GIVE THIS INFORMATION.

TEMPERATURE

TEMPERATURE IN THE BODY IS THE BALANCE MAINTAINED AS THE RESULT OF HEAT PRODUCED BY THE OXIDATION OF FOOD AND THE HEAT LOST BY RESPIRATION, PERSPIRATION, AND EXCRETION. THE MAIN PRODUCERS OF HEAT IN THE BODY ARE MUSCLES AND GLANDS. A FEW EXAMPLES THAT WOULD INCREASE BODY TEMPERATURE ARE DIGESTION OF FOOD, MUSCULAR ACTIVITY, INCREASED ENVIRONMENTAL TEMPERATURE, INFECTION, AND ILLNESS. TEMPERATURE IS A MEASURE OF BODY HEAT.



EXAMPLES THAT CAN DECREASE OR LOWER THE BODY TEMPERATURE ARE SLEEP, DEPRESSION, FASTING, EXPOSURE TO COLD, CERTAIN ILLNESSES, AND DECREASED MUSCLE ACTIVITY.

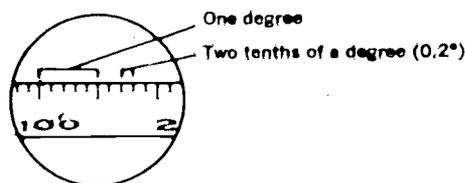
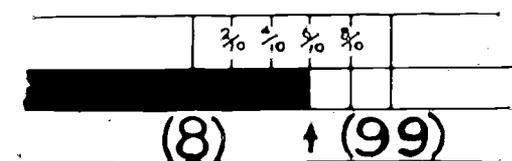


THE THERMOMETER

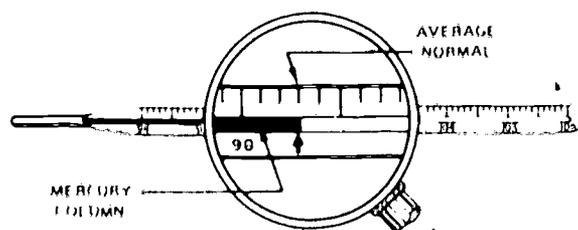
5

CLINICAL THERMOMETERS ARE USED TO TAKE THE PATIENT'S TEMPERATURES. THE THREE TYPES OF BULBS ARE ORAL, SECURITY, AND RECTAL. THE TWO PARTS TO THE THERMOMETER ARE THE STEM AND THE BULB, WHICH RISES UP THE HOLLOW PORTION OF THE STEM. THE THERMOMETER IS CALIBRATED IN WHOLE DEGREES OF EITHER FAHRENHEIT AND/OR CENTIGRADE. BETWEEN EACH WHOLE DEGREE ARE FOUR SHORTER LINES WHICH DESIGNATE $\frac{2}{10}$ OF A DEGREE. THE THERMOMETER MUST BE READ AT EYE LEVEL.

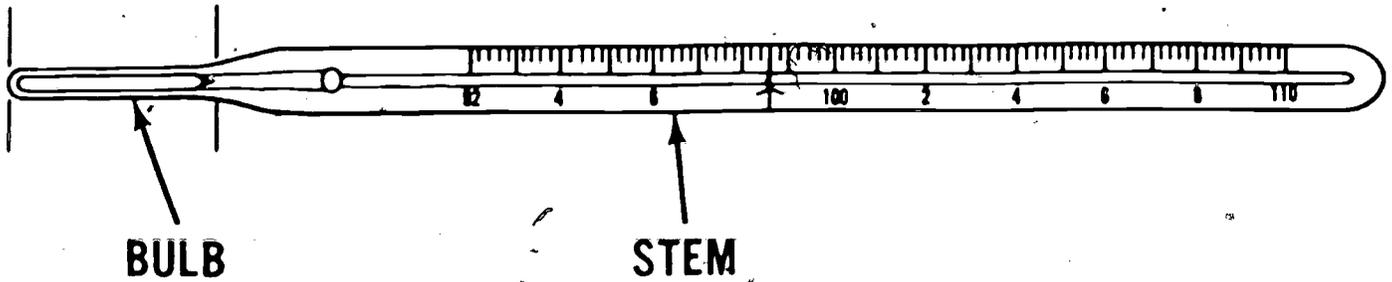
EXAMPLES ARE SHOWN BELOW AND ON THE FOLLOWING TWO PAGES.



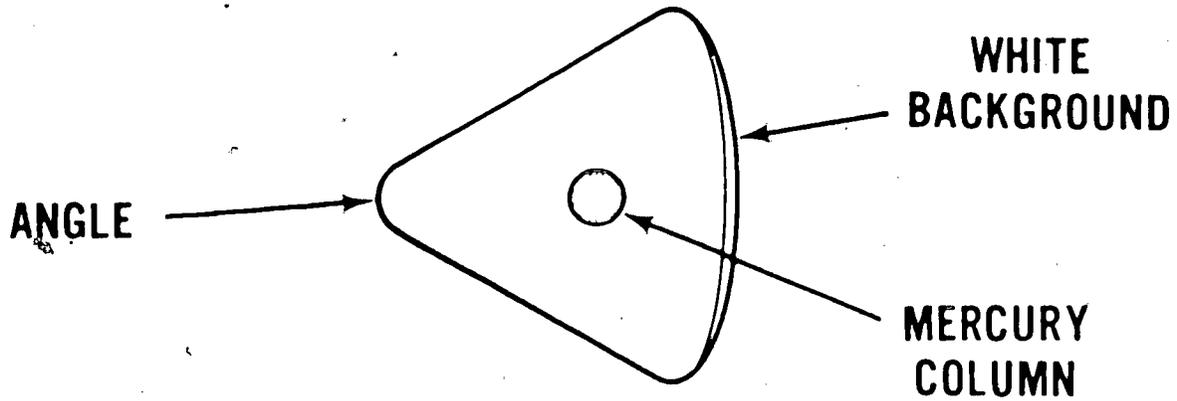
THE AVERAGE NORMAL BODY TEMPERATURE, AS MEASURED ORALLY, IS 98.6° FAHRENHEIT (SHOWN BELOW), OR 37° ON THE CENTIGRADE SCALE (SEE PAGE 13).



PARTS OF A THERMOMETER



CROSS SECTION

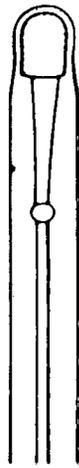


TYPES OF BULB

ORAL



SECURITY



RECTAL



REVIEW I.

DO YOU REMEMBER



COMPLETE THE FOLLOWING SENTENCES:

1. TEMPERATURE IS A MEASURE OF _____
2. TEMPERATURE, PULSE, AND RESPIRATION ARE REFERRED TO AS _____
3. THREE EXAMPLES OF WHAT COULD REDUCE BODY TEMPERATURE ARE _____
4. THREE EXAMPLES OF WHAT COULD ELEVATE BODY TEMPERATURE ARE _____ AND _____
5. CARDINAL SYMPTOMS MEANS THE SAME AS _____
6. VITAL SIGNS SHOULD BE GIVEN TO THE PATIENT ONLY BY THE _____

ANSWERS ON THE NEXT PAGE.

CHECK YOUR ANSWERS:



1. BODY HEAT



2. VITAL SIGNS

3. SLEEP, DEPRESSION, FASTING, EXPOSURE TO COLD, ILLNESS, DECREASED MUSCULAR ACTIVITY

4. DIGESTION OF FOOD, INCREASED MUSCULAR ACTIVITY, ELEVATED ENVIRONMENTAL TEMPERATURE, INFECTION, ILLNESS

5. VITAL SIGNS

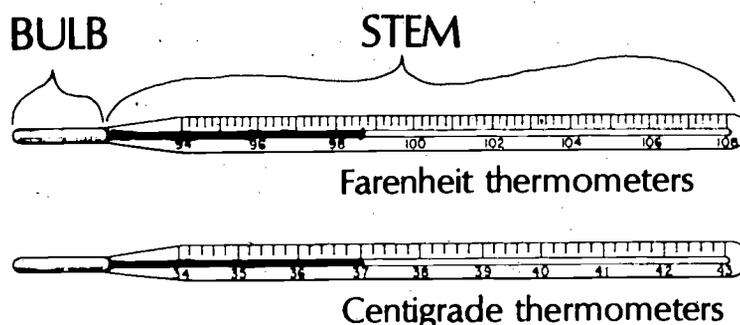
6. DOCTOR

IF ONE OR MORE ANSWERS ARE INCORRECT, PLEASE
TURN BACK AND REVIEW.

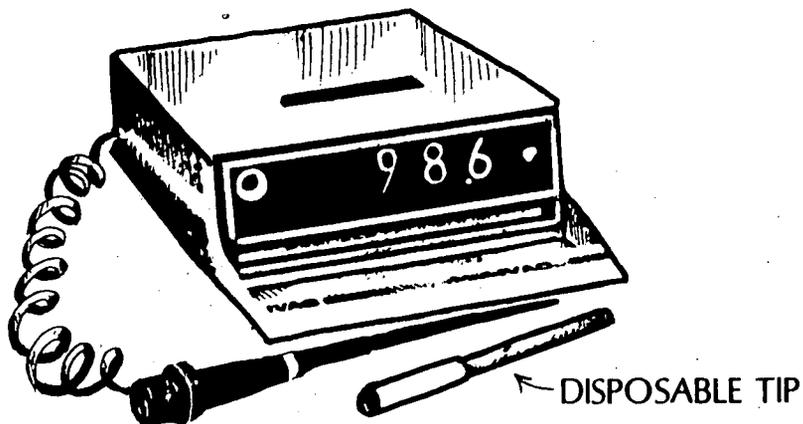
IF ALL ANSWERS ARE CORRECT, PROCEED TO
NEXT PAGE!



IF THE MERCURY FALLS BETWEEN TWO LINES, READ THE TEMPERATURE TO THE NEXT HIGHEST LINE. CLINICAL THERMOMETERS DIFFER MAINLY IN THE SIZE AND SHAPE OF THE BULB. THE LONG BULB IS USED FOR ORAL TEMPERATURES, AND THE STUBBY OR SECURITY BULB IS USED FOR AXILLARY AND RECTAL TEMPERATURES. RECTAL THERMOMETERS MAY BE DESIGNATED BY A RED TIP OR RED DOT ON THE STEM. THEY MUST NOT BE CONFUSED WITH ORAL AND AXILLARY THERMOMETERS.



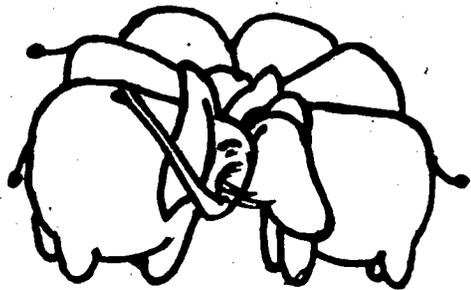
THE ELECTRONIC THERMOMETER IS BEING USED IN SOME FACILITIES. IT REGISTERS THE TEMPERATURE ON THE VIEWER IN A FEW SECONDS. A SINGLE UNIT CAN SERVE MANY PATIENTS BY CHANGING THE DISPOSABLE TIPS.



THE THERMOMETER ?

REVIEW II.

DO YOU REMEMBER?



1. NAME THE THREE TYPES OF CLINICAL THERMOMETERS.
2. THE TWO PARTS OF A CLINICAL THERMOMETER ARE THE _____ AND THE _____.
3. WHAT IS IN THE THERMOMETER WHICH RISES TO INDICATE THE TEMPERATURE?
4. CLINICAL THERMOMETERS ARE READ AND RECORDED IN _____ OR _____.
5. HOW CAN YOU DIFFERENTIATE BETWEEN AN ORAL AND RECTAL THERMOMETER?
6. WHAT IS ANOTHER KIND OF THERMOMETER BEING USED IN SOME FACILITIES?

CHECK YOUR ANSWERS ON THE FOLLOWING PAGE.

IF ALL ARE CORRECT, PLEASE CONTINUE ON.

IF NOT, REVIEW FIRST.



REVIEW II. ANSWER KEY

1. ORAL SECURITY RECTAL

2. BULB AND STEM

3. MERCURY

4. FAHRENHEIT AND CENTIGRADE

5. A RED TIP ON THE RECTAL THERMOMETER

6. ELECTRONIC

TAKING THE TEMPERATURE

THE THREE METHODS FOR TAKING A TEMPERATURE ARE AS FOLLOWS:

ORAL-----MOST COMMON

AVERAGE NORMAL IS 98.6°F. OR 37°C

RECTAL-----MOST ACCURATE

REGISTERS 1° HIGHER THAN ORAL

AXILLARY----LEAST ACCURATE

REGISTERS 1° LOWER THAN ORAL

TAKEN ONLY WHEN THE PATIENT'S

CONDITION DOES NOT PERMIT THE

USE OF ORAL OR RECTAL THERMOMETERS.

BEFORE TAKING A TEMPERATURE OR ANY VITAL SIGN, TELL THE PATIENT WHAT YOU ARE GOING TO DO, AND WASH YOUR HANDS!

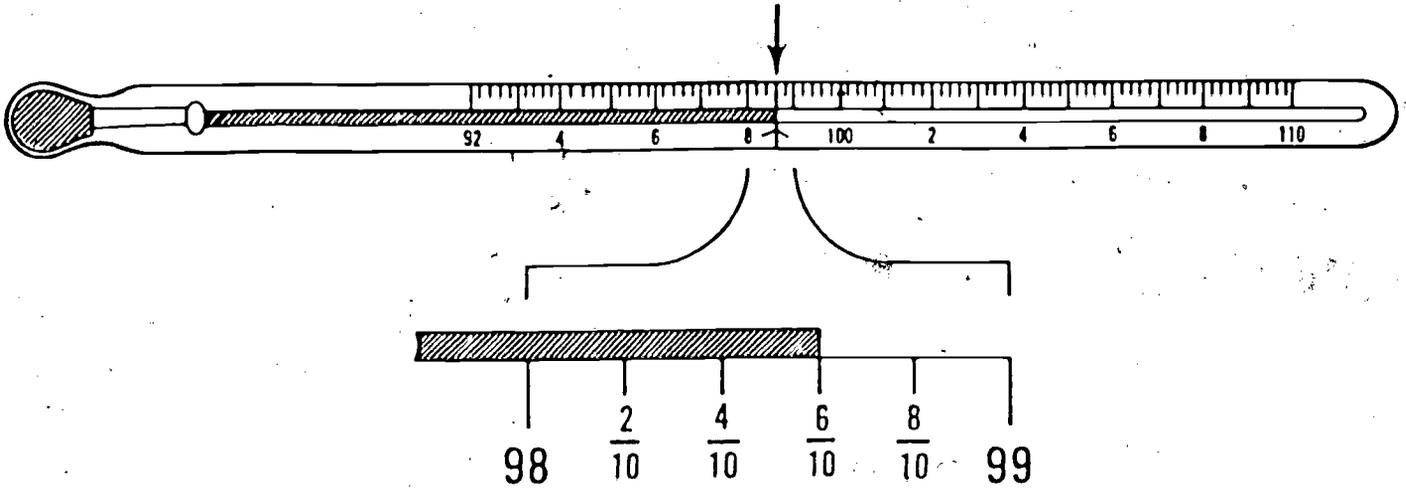
TO TAKE AN ORAL TEMPERATURE:

1. REMOVE THE THERMOMETER FROM THE CONTAINER.
2. HOLDING THE THERMOMETER BY THE STEM, ROTATE THE THERMOMETER SO YOU CAN SEE THE MERCURY COLUMN. IF IT DOES NOT REGISTER 94°F. OR 34°C, SHAKE IT DOWN BY STANDING AWAY FROM TABLE OR ANY STANDING OBJECT AND SNAPPING YOUR WRIST WHILE SHAKING YOUR HAND.

THERMOMETER SCALES

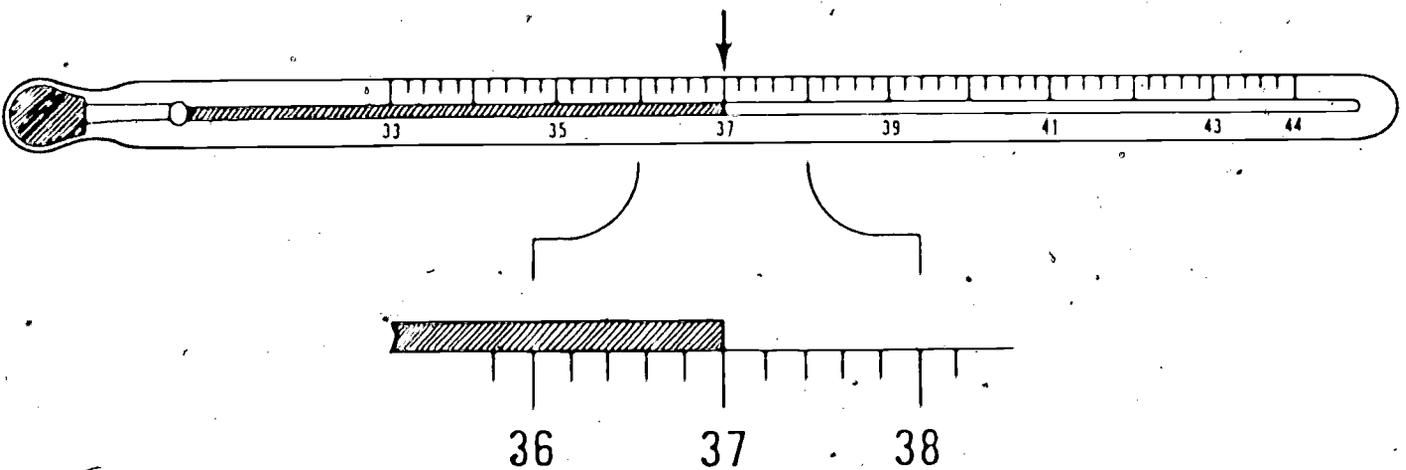
FAHRENHEIT

AVERAGE NORMAL



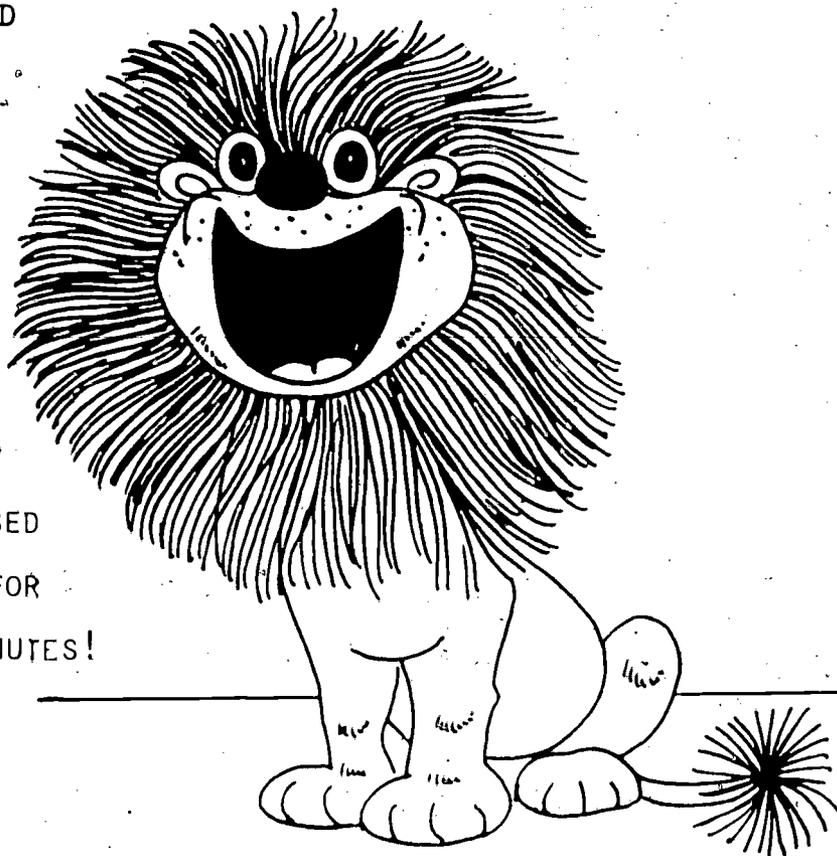
CENTIGRADE

AVERAGE NORMAL

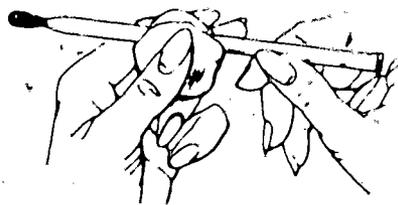


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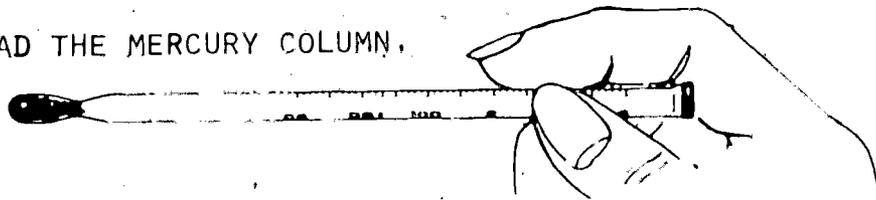
3. INSTRUCT THE PATIENT TO OPEN HIS OR HER MOUTH. INSERT THE BULB END OF THE THERMOMETER UNDER PATIENT'S TONGUE TOWARD THE SIDE OF MOUTH. TELL THE PATIENT TO HOLD THE THERMOMETER GENTLY WITH THE LIPS CLOSED (NOT WITH TEETH) FOR AT LEAST THREE MINUTES!



4. REMOVE THE THERMOMETER FROM THE PATIENT'S MOUTH AND WIPE IT WITH TISSUE FROM STEM TOWARD BULB.



5. HOLD THE END OF THE STEM WITH THE THUMB AND FOREFINGER, AND ROTATE THE THERMOMETER TO READ THE MERCURY COLUMN.



6. WASH THE THERMOMETER WITH SOAP UNDER COOL, RUNNING WATER.
7. RETURN THE THERMOMETER TO THE PROPER CONTAINER.

8. RECORD THE TEMPERATURE ON A PAD. RECORD ON PATIENT'S CHART OR IN TPR BOOK AS SOON AS POSSIBLE, ACCORDING TO POLICY OF FACILITY.

TO TAKE RECTAL TEMPERATURE

1. FOLLOW THE BASIC STEPS OF TAKING AN ORAL TEMPERATURE.
2. PUT A SMALL AMOUNT OF LUBRICANT ON A TISSUE OR PAPER TOWEL.
3. APPLY A SMALL AMOUNT OF LUBRICANT TO THE BULB OF THERMOMETER.
4. GENTLY INSERT THE BULB END OF THE THERMOMETER INTO THE PATIENT'S RECTUM, ABOUT 1-1½ INCHES, WHILE THE PATIENT IS LYING ON HIS OR HER SIDE, OR ON THE ABDOMEN IF IT IS AN INFANT OR CHILD.
5. HOLD IT IN PLACE FOR 5 MINUTES.
6. REMOVE THE THERMOMETER, WIPE WITH TISSUE, READ, AND THEN WASH THE THERMOMETER WITH SOAP UNDER COOL RUNNING WATER.
7. RECORD AS DESCRIBED FOR ORAL TEMPERATURE, EXCEPT PUT AN "R" BESIDE THE TEMPERATURE TO INDICATE THAT IT WAS TAKEN RECTALLY. A RECTAL TEMPERATURE IS TAKEN IN PREFERENCE TO AN ORAL TEMPERATURE ON VERY ILL PATIENTS, IRRATIONAL PATIENTS, CHILDREN, AND PATIENTS WHO MAY HAVE HAD MOUTH SURGERY OR ARE RECEIVING OXYGEN.



TO TAKE AN AXILLARY TEMPERATURE:

1. FOLLOW ALL BASIC PROCEDURES FOR TAKING AN ORAL TEMPERATURE.
2. HOLD THERMOMETER IN THE AXILLARY AREA FOR 10 MINUTES.
3. WHEN CHARTING, PLACE AN "A" OR "AX" BESIDE THE RECORDED TEMPERATURE.



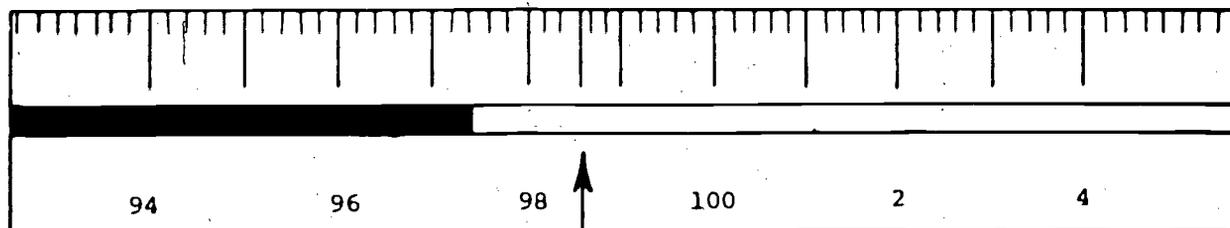
Axillary thermometer in position.

AN AXILLARY TEMPERATURE IS TAKEN WHEN IT IS NOT MEDICALLY ADVISABLE TO TAKE AN ORAL OR A RECTAL TEMPERATURE.

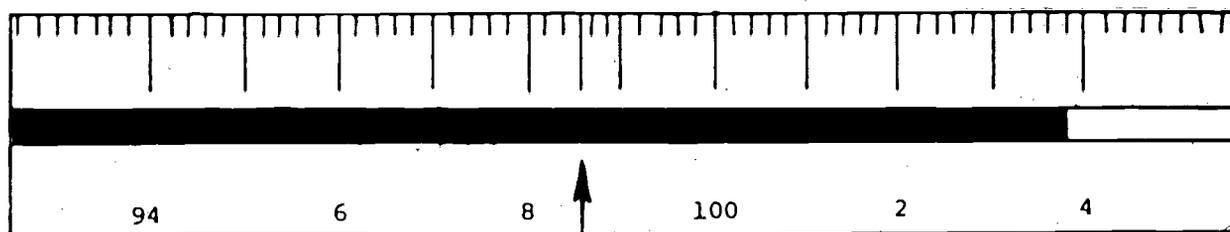
REMINDER

ALWAYS CHECK TO MAKE SURE THE THERMOMETER READS AS LOW AS 94°F. OR 34°C BEFORE TAKING A TEMPERATURE. OTHERWISE YOU WILL GET AN INCORRECT READING, AS CLINICAL THERMOMETERS DO NOT GO DOWN WITH COOLER TEMPERATURES - THEY ONLY RISE WITH HEAT. ALWAYS REPORT AN UNUSUALLY HIGH OR LOW TEMPERATURE TO THE PERSON IN CHARGE.

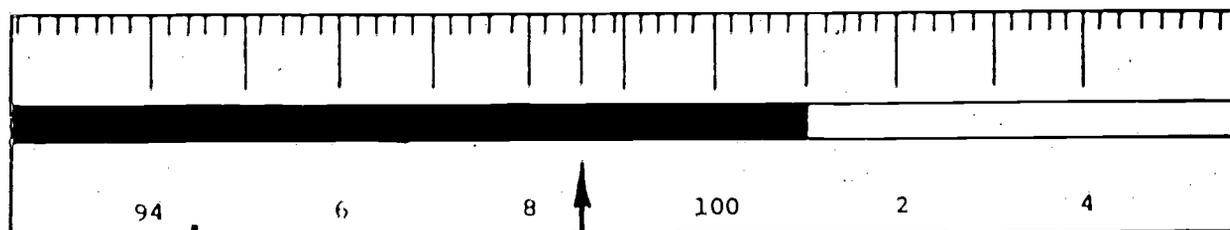




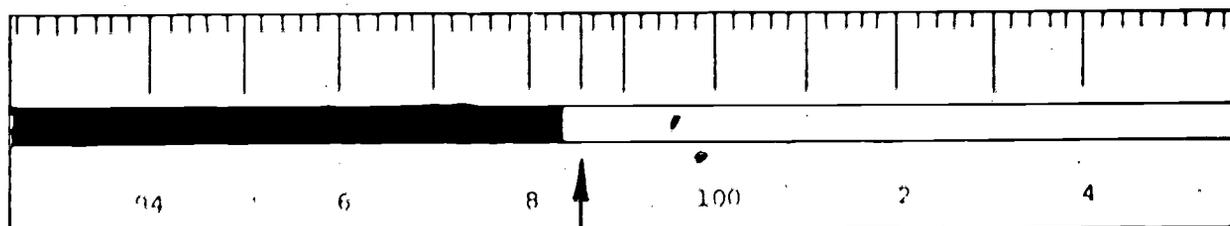
1.



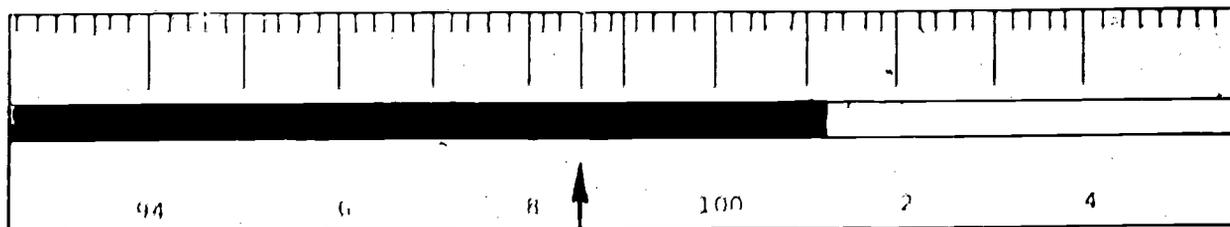
2.



3.



4.



5.

A greatly enlarged scale to show the markings on a standard clinical thermometer

REVIEW III. ANSWER KEY

TAKING THE TEMPERATURE

1. 1. 97.4 F. 2. 103.8 F. 3. 101 F.
4. 98.4 F. 5. 101.2 F.
2. 100.4°F. AND 98.4°F.
3. ORAL
4. 98.6°F.
5. TELL THE PATIENT WHAT YOU ARE GOING TO DO AND WASH YOUR HANDS.
6. COOL
7. LUBRICANT
8. 10

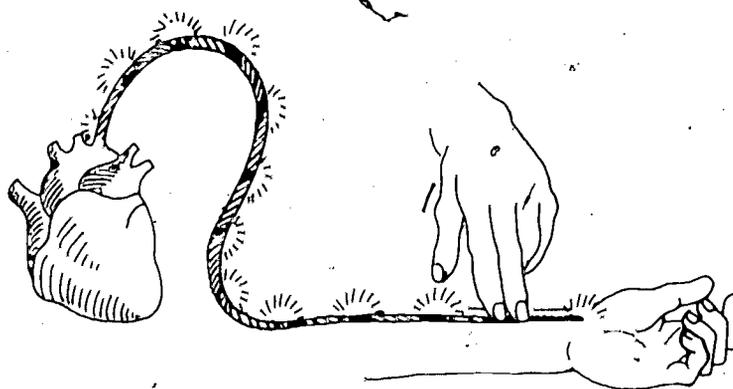
ARE ALL OF YOUR ANSWERS CORRECT?

Excellent

PROCEED ON!

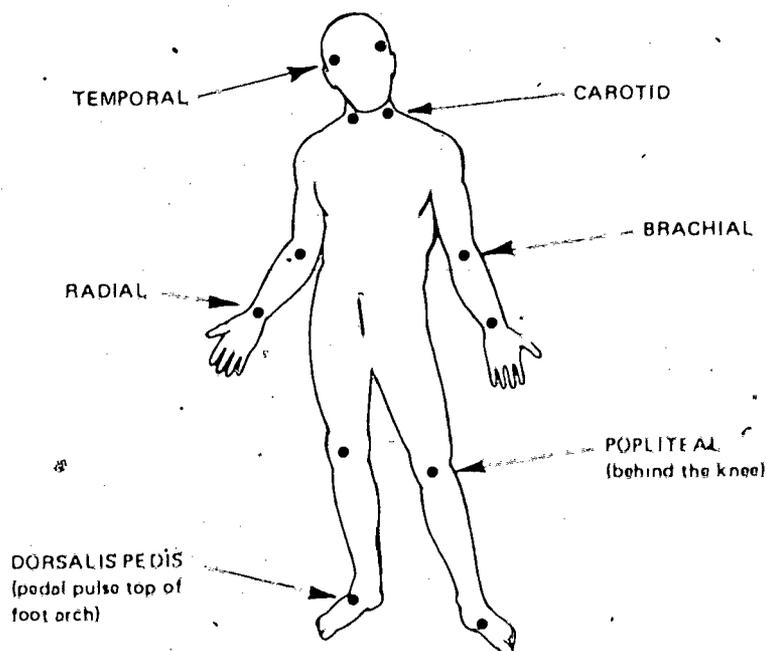
PULSE

THE PULSE IS DEFINED AS THE BEAT YOU FEEL AT AN ARTERY AS THE HEART PUMPS THE BLOOD AROUND THE BODY. IT IS THE PRESSURE OF THE BLOOD FELT AGAINST THE WALL OF AN ARTERY AS THE HEART ALTERNATELY BEATS OR CONTRACTS AND RESTS OR RELAXES.



THE PULSE CAN BE COUNTED BY PLACING THE FINGERS ON ANY ARTERY THAT LIES CLOSE TO THE SURFACE OF THE BODY AND OVER A BONE. THE MOST COMMON PLACE TO TAKE A PULSE IS AT THE RADIAL ARTERY IN THE WRIST.

THE FOLLOWING DIAGRAM SHOWS THE LOCATION OF OTHER ARTERIES WHERE THE PULSE CAN BE TAKEN.



TAKING THE PULSE:

1. TELL THE PATIENT WHAT YOU ARE GOING TO DO.
2. WASH YOUR HANDS.
3. HAVE THE PATIENT IN A COMFORTABLE POSITION, PREFERABLY LYING DOWN WITH HIS OR HER ARM BESIDE OR ACROSS THE CHEST WITH THE PALM DOWN.
4. LOCATE THE PULSE WITH THE TIPS OF YOUR FIRST TWO OR THREE FINGERS ON THE THUMB SIDE OF THE PATIENT'S WRIST.
5. EXERT A SLIGHT PRESSURE WHEN THE PULSE IS FELT. COUNT FOR ONE MINUTE. IT IS PERMISSIBLE IN SOME FACILITIES TO COUNT FOR 30 SECONDS AND MULTIPLY BY TWO AS THE PULSE RATE IS CHARTED FOR 1 MINUTE.



REVIEW I.

DO YOU REMEMBER

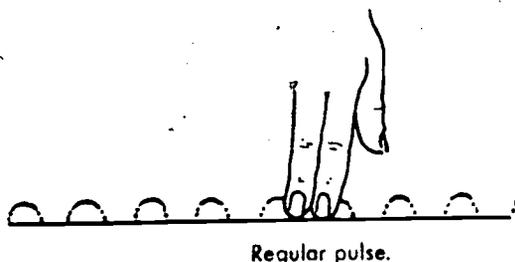


COMPLETE THE FOLLOWING SENTENCES:

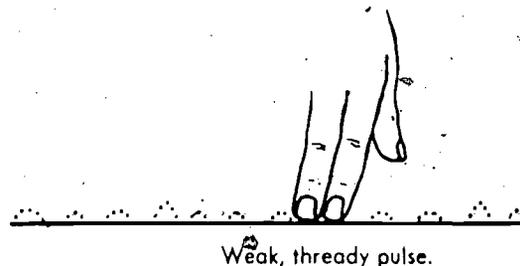
1. TEMPERATURE IS A MEASURE OF _____
2. TEMPERATURE, PULSE, AND RESPIRATION ARE REFERRED TO AS _____
3. THREE EXAMPLES OF WHAT COULD REDUCE BODY TEMPERATURE ARE _____
4. THREE EXAMPLES OF WHAT COULD ELEVATE BODY TEMPERATURE ARE _____ AND _____
5. CARDINAL SYMPTOMS MEANS THE SAME AS _____
6. VITAL SIGNS SHOULD BE GIVEN TO THE PATIENT ONLY BY THE _____

ANSWERS ON THE NEXT PAGE.

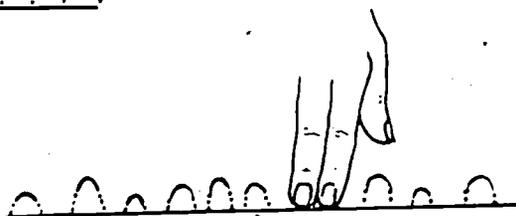
6. RECORD THE RATE AND CHARACTER OF THE PULSE. NOTE: Do NOT TAKE PULSE WITH YOUR THUMB. IT HAS A BEAT OF ITS OWN. THE FOLLOWING DIAGRAMS SHOW THE REGULAR, IRREGULAR, AND WEAK, TREADY PULSE.



Regular pulse.



Weak, thready pulse.



Irregular pulse.

IT IS IMPORTANT TO REPORT ANY ABNORMALITY OR CHANGE IN THE CHARACTER OF THE PULSE. SOME FACTORS INFLUENCING THE PULSE RATE INCLUDE SIZE, AGE, SEX, DRUGS, EXERCISE, EMOTIONAL EXCITEMENT, HEMORRHAGE, AND ELEVATED TEMPERATURE.



THE AVERAGE NORMAL PULSE RATE IS 72-80 BEATS PER MINUTE. HOWEVER, IT IS USUALLY SLOWER IN THE MALE AND MORE RAPID IN CHILDREN.

WHEN CHARTING THE PULSE, IT IS IMPORTANT TO NOTE THE RATE OR SPEED, RHYTHM OR REGULARITY, AND VOLUME OR FULLNESS.

THE APICAL PULSE IS TAKEN WITH A STETHOSCOPE, WHICH IS PLACED OVER THE APEX OF THE HEART, APPROXIMATELY AT THE LEVEL OF THE FIFTH RIB. THE APICAL PULSE IS HEARD, NOT FELT, AND COUNTED FOR ONE MINUTE. IT IS THE MOST ACCURATE PULSE, AS YOU ARE HEARING THE ACTUAL HEART BEAT.

A FEW TERMS WITH WHICH YOU SHOULD BE FAMILIAR ARE AS FOLLOWS:

TACHYCARDIA - UNUSUALLY RAPID HEART BEAT OVER
100 BEATS PER MINUTE

BRADYCARDIA - UNUSUALLY SLOW HEART BEAT UNDER
60 BEATS PER MINUTE

ARRHYTHMIA - IRREGULAR HEART BEAT



REVIEW IV.

BEFORE GOING ON, TAKE ONE OF YOUR OWN WORK SHEETS AND TEST YOURSELF.

1. THE PULSE BEAT IS THE PRESSURE FELT AT AN _____.
2. THE MOST COMMON PLACE TO TAKE A PULSE IS AT THE _____ ARTERY, WHICH IS FOUND IN THE _____.
3. THE PULSE IS COUNTED FOR _____ MINUTE OR FOR _____ SECONDS AND MULTIPLIED BY _____.
4. THE PULSE SHOULD NOT BE TAKEN WITH THE _____.
5. THE AVERAGE NORMAL PULSE IS _____.
6. WHEN RECORDING THE PULSE, YOU SHOULD NOTE THE _____, _____, AND _____.
7. THE _____ PULSE IS TAKEN WITH A STETHOSCOPE.
8. TACHYCARDIA MEANS _____.

CHECK YOUR ANSWERS ON THE FOLLOWING PAGE.

ALL CORRECT??

GREAT!



REVIEW IV. ANSWER KEY

1. ARTERY
2. RADIAL, WRIST
3. ONE, 30, 2
4. THUMB
5. 72-80
6. RATE, RHYTHM, VOLUME
7. APICAL
8. UNUSUALLY RAPID HEART BEAT.

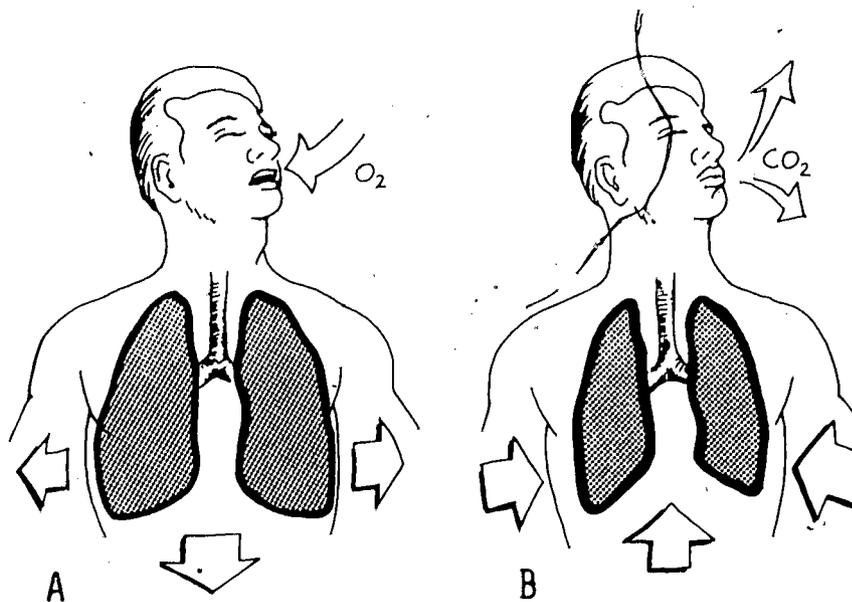


RESPIRATION

RESPIRATION IS THE PROCESS, BY WHICH THE BODY TAKES OXYGEN INTO THE LUNGS AND ELIMINATES CARBON DIOXIDE. IT IS AN EXCHANGE OF GASES. THE RATE OF RESPIRATION SHOULD BE COUNTED AND ITS CHARACTER NOTED WITHOUT THE PATIENT'S KNOWLEDGE.

INSPIRATION IS BREATHING IN AND TAKING IN OXYGEN (O_2).
EXPIRATION IS BREATHING OUT AND ELIMINATING CARBON DIOXIDE (CO_2).

ONE INSPIRATION PLUS ONE EXPIRATION EQUALS ONE RESPIRATION.



VIEW A SHOWS THE CHEST AND THE LUNGS ENLARGING WITH INSPIRATION, AND VIEW B SHOWS THE CHEST MUSCLES RETURNING TO THEIR RESTING PHASE. THE LUNG SPACE IS GETTING SMALLER, AND EXPIRATION IS OCCURRING.

COUNTING RESPIRATIONS:

1. AFTER COUNTING THE PULSE, RELAX YOUR FINGERS SLIGHTLY, BUT DO NOT REMOVE THEM.
2. OBSERVE THE RISE AND FALL OF THE PATIENT'S CHEST, AND COUNT FOR ONE MINUTE, REMEMBERING THAT ONE INSPIRATION PLUS ONE EXPIRATION EQUAL ONE RESPIRATION.
3. OBSERVE THE RATE AND CHARACTER OF THE RESPIRATIONS. RESPIRATIONS ARE DESCRIBED AS DEEP OR SHALLOW; EASY OR LABORED; PAINFUL, RAPID, OR SLOW; NOISY.
4. RECORD RESPIRATION RATE ON PAD OR PATIENT'S CHART.
(THE AVERAGE NORMAL RESPIRATION RATE IS 16-20 PER MINUTE)

INFORMATION IS RECORDED IN THE TPR BOOK IN THE FOLLOWING ORDER:

1. TEMPERATURE
2. PULSE
3. RESPIRATION

THE FOLLOWING IS AN EXAMPLE OF AN ENTRY: 98.6-80-20



REVIEW V.

CAN YOU REMEMBER??

1. THE AVERAGE NORMAL RESPIRATION IS _____.
2. _____ PLUS _____ EQUAL
RESPIRATION.
3. _____ IS TAKEN IN ON INSPIRATION.
4. _____ IS ELIMINATED ON EXPIRATION.
5. COUNT RESPIRATIONS IMMEDIATELY AFTER TAKING THE
_____, SO THE PATIENT IS NOT AWARE
THAT YOU ARE COUNTING THE RESPIRATIONS.

REVIEW V.

ANSWER KEY

1. 16-20.
2. INSPIRATION, EXPIRATION
3. O_2
4. CO_2
5. PULSE

KEEP UP THE

GOOD
WORK

AND PROCEED ON-----

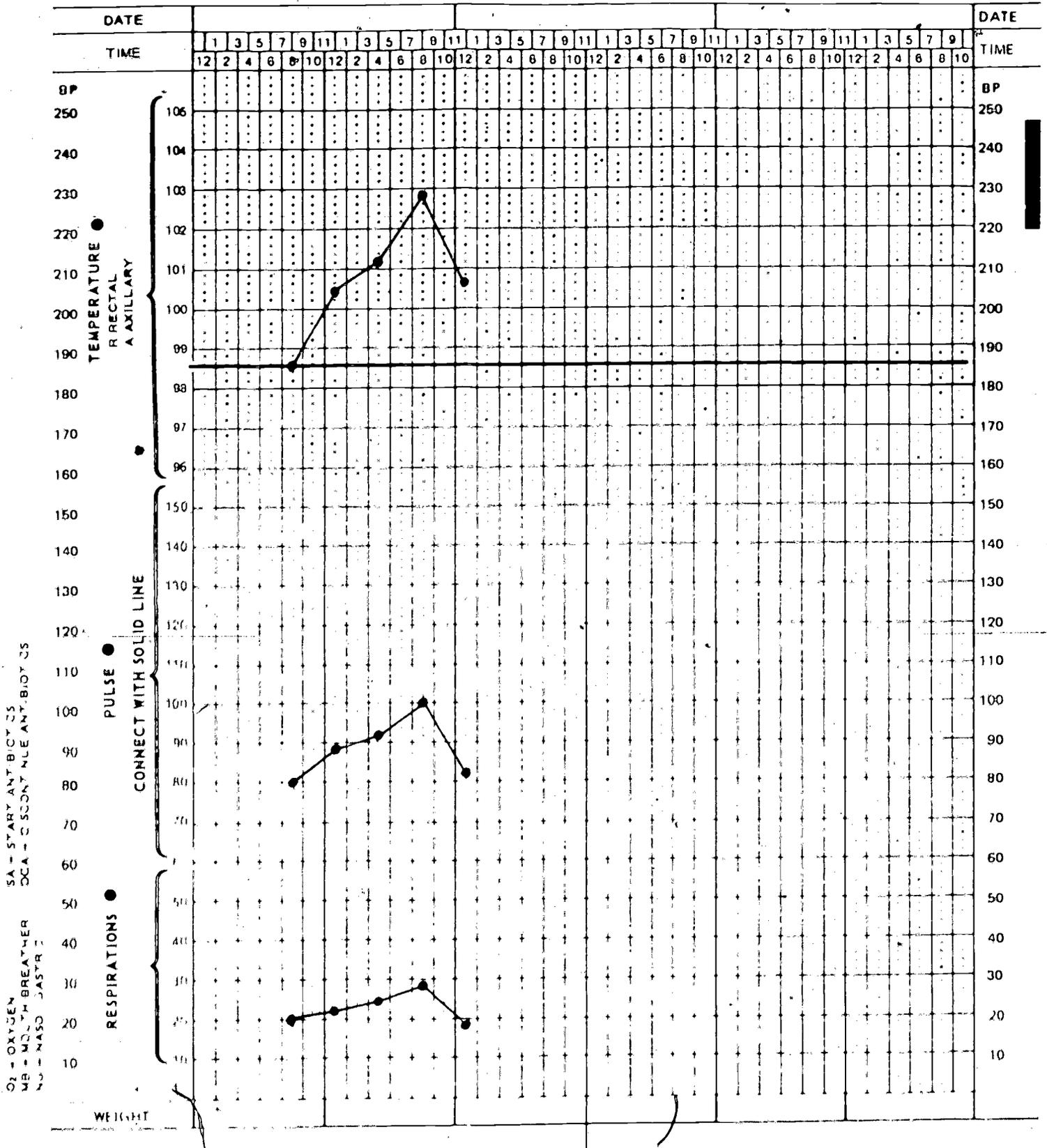
THE IMPORTANCE OF LEARNING THE PROPER PROCEDURE FOR TAKING AND RECORDING VITAL SIGNS CANNOT BE OVEREMPHASIZED. ANY ERROR COULD GROSSLY AFFECT THE DIAGNOSIS AND RECOVERY OF A PATIENT. THE ABILITY TO RECOGNIZE SUDDEN, ABNORMAL CHANGES IS VERY IMPORTANT. THE DOCTOR RELIES ON YOUR COMPETENCE AND EFFICIENCY IN REPORTING ANY ABNORMALITIES.

THE FIRST FIVE OF THE FOLLOWING VITAL SIGNS ARE RECORDED ON THE GRAPHIC CHART ON THE NEXT PAGE. USING THE BLANK GRAPHIC CHART FROM YOUR INSTRUCTOR, GRAPH THE SECOND FIVE.

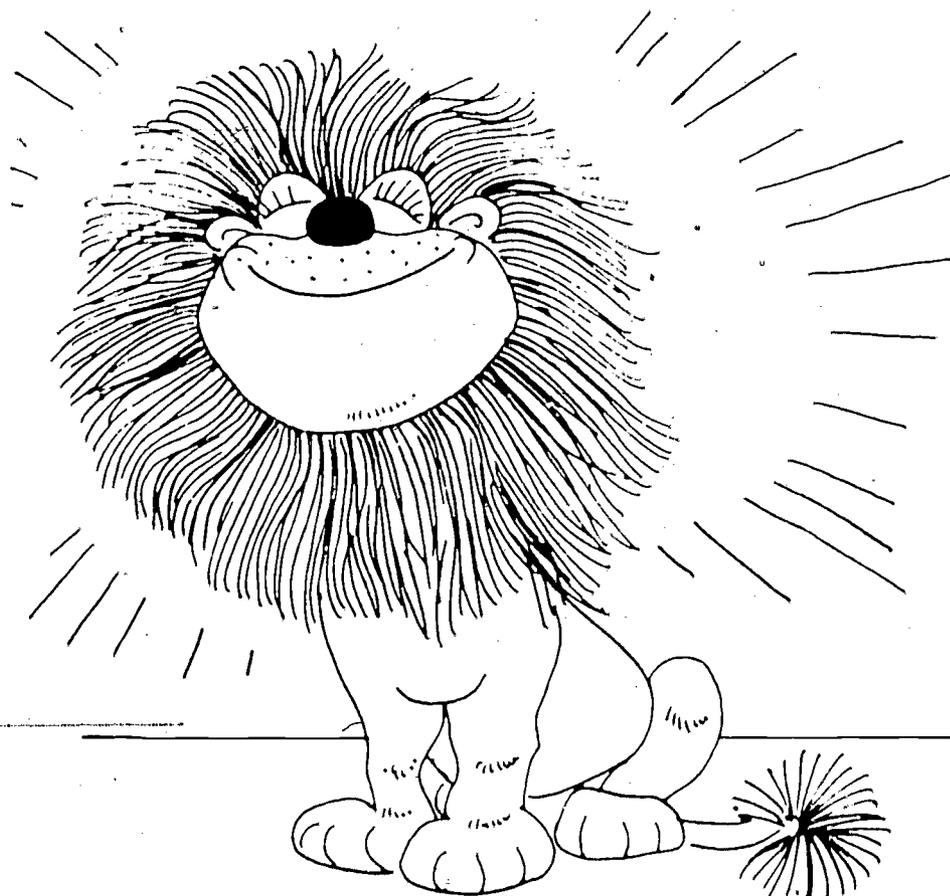
8 A.M.	98 ⁶ - 80 - 20
12 Noon	100 ⁴ - 88 - 22
4 P.M.	101 ² - 92 - 24
8 P.M.	102 ⁸ - 100 - 28
12 Mid.	100 ⁶ - 82 - 18
4 A.M.	97 ⁶ - 76 - 16
8 A.M.	98 - 62 - 14
12 Noon	99 ⁸ - 68 - 16
4 P.M.	102 ² - 102 - 24
8 P.M.	101 ⁶ - 96 - 18

RECORD ALL TEN VITAL SIGNS ON THE SAMPLE PAGE FROM A TPR BOOK.

HEPPOPS FORM-104 (11/16/61) (17) (4) (50) (20)



GIVE THIS BOOKLET TO YOUR INSTRUCTOR WITH YOUR
COMPLETED WORK SHEET AND PICK UP THE FINAL LAP
REVIEW AND WORK SHEET.



Learning Activity Packages Available from the Department of Education

This learning activity package is one of a series of 12 titles relating to health careers that are available from the California State Department of Education. A student packet and an instructor's packet are published in each of the following subjects:

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- The Surgical Scrub
- Syncope
- Temperature, Pulse, and Respiration

Student packets are available at \$1.75 each, plus tax, and instructors' packets at \$1.50 each, plus tax.

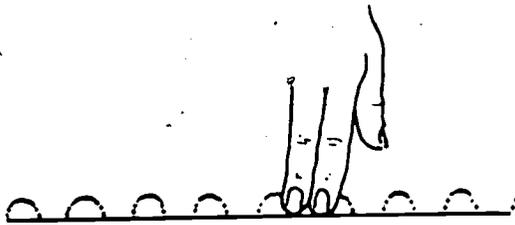
Orders should be directed to:

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Remittance or purchase order must accompany order. Purchase orders without checks are accepted only from government agencies in California. Sales tax should be added to all orders from California purchasers.

A complete list of approximately 500 publications available from the Department may be obtained by writing to the address listed above.

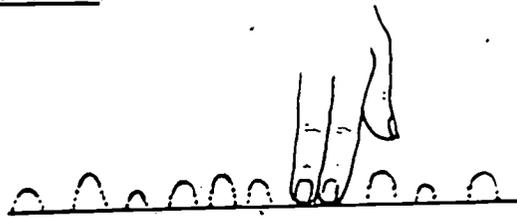
6. RECORD THE RATE AND CHARACTER OF THE PULSE. NOTE: Do NOT TAKE PULSE WITH YOUR THUMB. IT HAS A BEAT OF ITS OWN. THE FOLLOWING DIAGRAMS SHOW THE REGULAR, IRREGULAR, AND WEAK, THREADY PULSE.



Regular pulse.



Weak, thready pulse.



Irregular pulse.

IT IS IMPORTANT TO REPORT ANY ABNORMALITY OR CHANGE IN THE CHARACTER OF THE PULSE. SOME FACTORS INFLUENCING THE PULSE RATE INCLUDE SIZE, AGE, SEX, DRUGS, EXERCISE, EMOTIONAL EXCITEMENT, HEMORRHAGE, AND ELEVATED TEMPERATURE.

