

WORKBOOK IN EMERGENCY MEDICAL TREATMENT

Review Problems for EMTs

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To Eugene Nagel

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PREFACE

Probably everyone has seen it on television—the scene in which the ambulance comes howling up to the man lying on the street, and the EMTs leap out, take charge, and have the man nicely trussed in bandages and splints just a few moments later. It all looks very easy the way it is done on television—but it is not. Nothing about it is easy. Being an EMT is, in fact, one of the toughest jobs a person can choose. It is also one of the best jobs, as anyone in the business will attest.

Becoming an EMT is also a tough job. There is a mass of information to absorb and a whole list of skills to acquire, often in a relatively short time. When simply reading a textbook, it is easy to become overwhelmed. One needs to pause every so often in order to make sure what has already been presented has been assimilated, before charging ahead to learn something new.

That is the main aim of this workbook—to provide a chance to pause after each chapter in *Emergency Medical Treatment* to take stock of what has penetrated into memory. The questions in the workbook are specifically designed to test each of the learning objectives outlined in the text, so that the student may immediately assess to what degree he or she has met those objectives. Because the human brain tends to eject more remote memories in favor of more recent information, we have also included four special *Stop and Review* sections in the workbook. These sections are intended to reinforce important concepts learned in earlier chapters—concepts that may be growing a bit dim in memory because of other information that had to be mastered in the meantime.

This workbook, in fact, has a dual function. In addition to serving as a workbook in conjunction with *Emergency Medical Treatment*, it is intended as a review book for EMTs who are preparing for certification examinations or who simply want to refresh their knowledge as part of a program of continuing education.

The book's main character, Morris Q. Morris (known to other operatives simply as MQM), is an EMT who was selected by a secret agency (because of his keen observational skills) to roam the world and gather intelligence about the care of the ill and injured. Whenever he gets a chance, MQM radios back a message in code, and we shall be decoding his transmissions periodically throughout the book to discover what secrets he has learned about emergency medical care.

N. L. C.

**WORKBOOK
IN
EMERGENCY
MEDICAL
TREATMENT**

1. THE EMT AND THE EMS SYSTEM

1-1. GALLOP AND GRAB

Humboldt Whizzer was an ambulance driver in 1892. Humboldt had the following responsibilities: (a) feed and water the horse, (b) keep the stretcher clean; (c) keep the wagon wheels oiled; and (d) in emergencies, get to the patient as fast as possible, load him into the wagon as fast as possible, and drive like mad to the hospital.

Humboldt's great-grandson, Bill Whizzer, is a certified EMT

- a. In what respects do Bill Whizzer's responsibilities resemble those of his great-grandfather?

- b. In what respects do Bill's responsibilities differ from those of his great-grandfather?

- c. What additional responsibilities does Bill have that his great-grandfather did not?

1-2. WILL THE REAL EMT PLEASE STEP FORWARD?

Rosenkrantz and Gildenshern have applied to take an EMT course, and you must interview both candidates to determine their suitability for this type of work.

Rosenkrantz is 29 years old, 6 feet and 1 inch tall, and weighs 185 pounds. He comes to the interview dressed in a moth-eaten yellow sweatshirt and old blue jeans. He has a Mohican haircut. He has 14 years of education and saw combat duty as a medical corpsman in Viet Nam. He states that he probably knows most of the material already, so the course should be a breeze. He is currently working as a bartender, and he spends his free time skydiving.

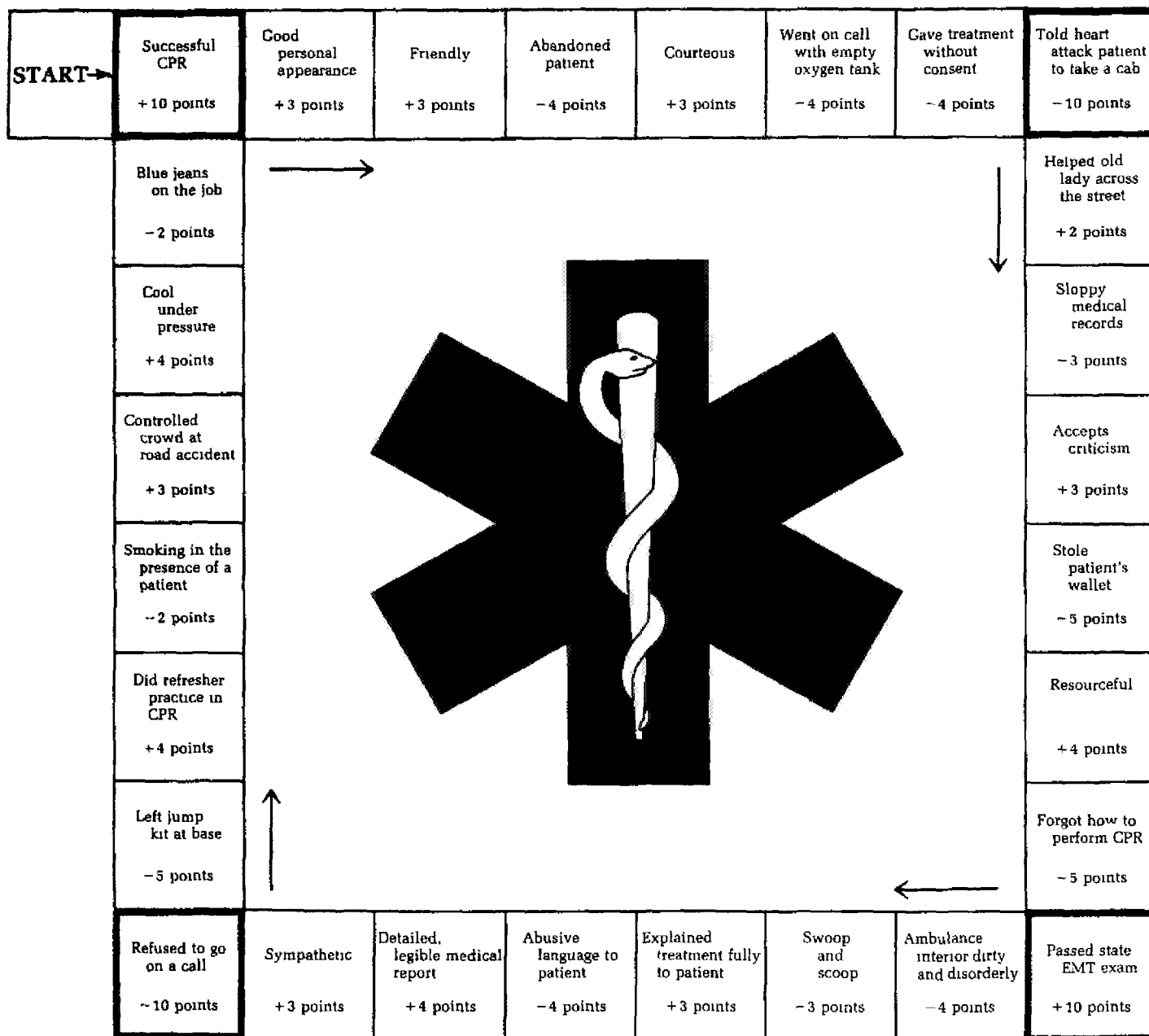
Gildenshern is 23 years old, 5 feet and 3 inches tall, and weighs 140 pounds. He comes to the interview in a tie and jacket. He left high school after the tenth grade to support his mother and sisters, and he took a job as a hospital orderly. He has taken courses at night to become a nurse's aide. He states that he is not sure he has what it takes to be an EMT. He spends his free time working with the Big Brother organization.

For each of these candidates, indicate which of their qualities would suggest desirable traits for an EMT and which suggest undesirable traits. Explain your reasons. Which one would you select for your course? Which would you rather have working with you on your squad?

1-3. THE PERFECT EMT GAME

Instructions: The game is played by two or more students, each of whom is supplied with a distinctive marker (such as a button) and a die. Each student begins at **START** and, sequentially, rolls his or her die to determine how many spaces to proceed. The

game continues until one student gets 30 points and thus becomes the Perfect EMT. Any player getting minus 30 points is automatically dropped from the game.



1-4. THE EMS CHAIN

A 55-year-old man collapses at home in the presence of his wife and three children. His 16-year-old son recently passed a course in CPR. They live in a community where all emergency services (fire, police, ambulance) can be reached by dialing 911. Every fire fighter in the community is trained to the level of EMT-A, and there are two advanced life support units (with paramedics) for the city. The nearest firehouse is 3 minutes away; the nearest paramedic unit is 10 minutes away, and the nearest hospital is 20 minutes away.

List in order the steps that should be taken in han-

dling this emergency, and indicate which component of the EMS system is involved in each step.

1-5. WHAT'S WRONG WITH THIS PICTURE?

Willamena Whistlethorpe is a 75-year-old woman who lives in an old house just outside of town with her 31 dogs and 14 cats. One evening, while taking her after-dinner constitutional, she begins to notice a heavy sensation in her chest. She returns home to lie down. A neighbor phones, and Willamena reports that she is feeling a bit under the weather. The neighbor is concerned and goes to Willamena's house to check. She finds Willamena unconscious on the bedroom floor, with 31 dogs whimpering around her. Unable to find a telephone book, the neighbor runs back to her own house and begins hunting through the Yellow Pages for the number of an ambulance. At the first three numbers she calls, the dispatcher tells her that Willamena is not in their district. Finally, she reaches an EMT squad willing to respond. They

arrive 10 minutes later and determine that Willamena is in cardiac arrest. They begin CPR and elect to transport Willamena to the hospital, 30 minutes away, giving CPR en route. When they arrive at the hospital, a sleepy-eyed doctor glances at Willamena and says, "Might as well quit—it's hopeless."

The above story illustrates several weak links in the EMS chain. How many of them can you identify?

1-6. LAW AND ORDER

Match the following terms with the definition that best fits each.

- a. standard of care
- b. duty to act
- c. implied consent
- d. negligence
- e. informed consent
- f. abandonment
- g. liability
- h. litigation

- _____ the abrupt termination of contact with the patient, without the patient's consent and without allowing the patient sufficient time to find another health care professional to look after him*
- _____ a lawsuit

- _____ a patient's agreement to accept a certain treatment after the nature and risks of the treatment have been fully explained to him
- _____ the obligation of public and certain other ambulance personnel to respond to a call for assistance in their jurisdiction
- _____ the norm for providing treatment, against which a person's performance is judged
- _____ failure to exercise the care that circumstances demand; an act of commission or omission that results in injury to the patient
- _____ assumed agreement to receive emergency life-saving treatment when the patient is physically or otherwise incapable of giving knowing consent
- _____ legal obligation or responsibility

*Bear in mind that "him" may be "her."

1-7. MAY IT PLEASE THE COURT

For each of the following statements, place a T beside the statement if it is true and an F beside the statement if it is false.

- a. ____ An EMT may transport a psychiatric patient to the hospital against the patient's will.
 - b. ____ If a child needs emergency treatment to save his life and no parent or guardian is available to give consent, the EMT may treat the child, because consent is said to be implied in such circumstances.
 - c. ____ A mentally competent adult has the right to refuse treatment.
 - d. ____ An EMT is expected to provide the same emergency treatment as a prudent lay person who has no first aid training would provide under the same circumstances.
-

1-8. PUT IT IN WRITING

The ambulance trip sheet or medical report may be called as evidence in court. List the minimum information that should be included in the report of an ambulance run. What should not be in the report?

1-9. YOUR DAY IN COURT

You have been called for jury duty, and as luck would have it, the cases assigned to your group are lawsuits against EMTs. You must help to decide, in each case, whether the EMT is guilty of the charges against him.

Case 1: *Jock v. Rock*

Randall Jock was a star fullback for his college football team and was about to sign a professional contract when he sustained a broken leg in an automobile accident. Rick Rock, the EMT on duty, arrived at the scene of the accident 4 minutes after receiving the call. He made a thorough assessment, noted that the broken leg was the only injury, and used a traction splint to stabilize it. His record of the case is detailed and has been submitted in evidence. Randall Jock's leg never healed properly and required multiple operations. Randall Jock is suing Rick Rock for damages, claiming that Rick's management at the scene was negligent and was the cause of his disability, which took away his livelihood in professional football.

Do you think Rick Rock was negligent? Explain the reasons for your conclusions.

Case 2: *Widow Parsons v. EMT Jones*

Reginald Parsons was a 55-year-old businessman who suffered from diabetes, but it was generally well-controlled with insulin. On one very hectic day, however, he skipped a couple of meals, and when he got home that evening, he began to feel quite weak. About an hour later, his wife found him unconscious in the bedroom. She summoned an ambulance, and the ambulance arrived 6 minutes later. The EMT, Buck Jones, determined that the patient was breathing and had a pulse, and he then loaded the patient into the ambulance for transport. On arrival at the hospital, Buck noticed that all the doctors and nurses in the ER were occupied with the victims of a multicasualty road accident, so he transferred Reginald to a gurney in room 4. As he was doing so, he got a call on his radio for a possible sprained ankle case, so he left the ER immediately to respond to that call. Fifteen minutes later, when a nurse entered room 4 of the ER, she found Reginald Parsons dead from an obstructed airway. Now Reginald's widow is suing Buck Jones on the grounds that his negligence led to her husband's death.

Do you think Buck Jones was negligent? Explain the reasons for your conclusions.

2. AN INTRODUCTION TO ANATOMY

2-1. FIBULA, FIBULA, WHEREFORE ART THOU, FIBULA?

For each of the following statements, insert the correct word from the list below (Note: Some words may be used more than once.)

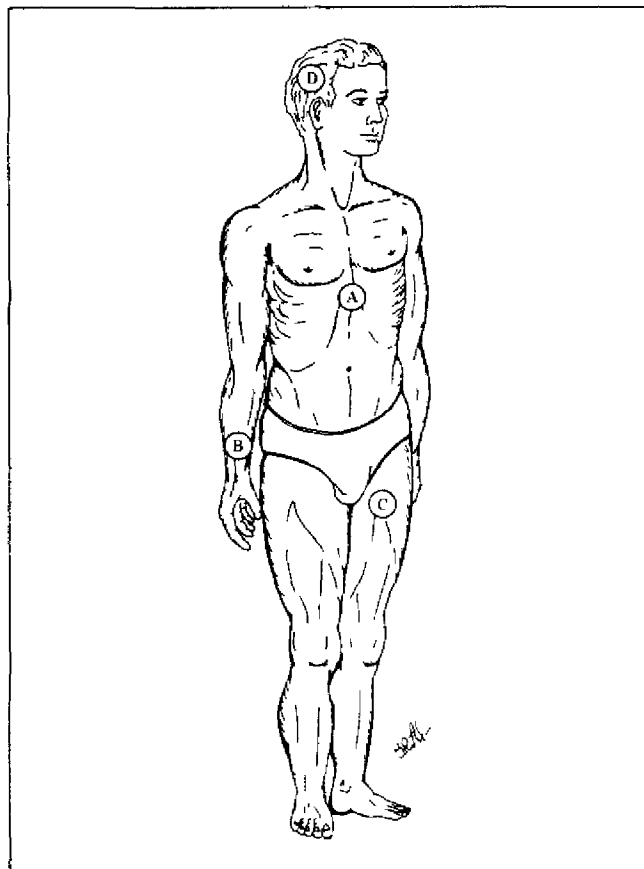
anterior	medial	left
posterior	lateral	right
superior	proximal	
inferior	distal	

1. The elbow is _____ to the wrist.
2. The neck is _____ to the chest.
3. The knee is _____ to the hip.
4. The liver is in the _____ upper quadrant of the abdomen.
5. The temporal region of the skull is _____ to the occipital region.
6. The heart is _____ to the lungs.
7. The stomach is _____ to the heart.

8. The nipples are _____ to the sternum.
9. The esophagus is _____ to the larynx (voicebox).
10. The radius is _____ to the humerus.
11. The clavicle is _____ to the sternum.
12. The spleen is in the _____ upper quadrant of the abdomen.
13. The femur is _____ to the tibia.
14. The brachial pulse is _____ to the radial pulse.
15. The pelvis is _____ to the chest.
16. The thorax is _____ to the abdomen.
17. The carotid pulse is _____ to the femoral pulse.
18. The intestines are _____ to the kidneys.
19. The mandible is _____ to the maxilla.
20. The left eye is _____ to the left ear.

2-2. REPORTING MAP COORDINATES

A 34-year-old man sustained four stab wounds, labeled A, B, C, and D on the following diagram. You have to describe the locations of these wounds by radio to a doctor at the base hospital. Using the correct technical terminology, describe as precisely as you can the location of each of the wounds.



2-3. I BELONG TO SOMEONE, AND SOMEONE BELONGS TO ME

For each of the following parts of the body, indicate whether it belongs to the

- a. head
- b. neck
- c. chest

- d. abdomen
- e. extremities

- ☐ sternum
- ☐ liver
- ☐ carotid pulse
- ☐ ulna
- ☐ temporal bone
- ☐ spleen
- ☐ fibula
- ☐ mandible

- ☐ radial pulse
- ☐ rib
- ☐ humerus
- ☐ heart
- ☐ external jugular vein
- ☐ clavicle
- ☐ larynx

2-4. DEM BONES

For each of the following bones, indicate whether it belongs to

- a. the upper extremity
- b. the lower extremity
- c. the skull
- d. the chest

- ☐ parietal bone
- ☐ ulna
- ☐ fibula
- ☐ rib
- ☐ metatarsal
- ☐ temporal bone
- ☐ radius
- ☐ sternum

- ☐ humerus
- ☐ femur
- ☐ mandible
- ☐ metacarpal
- ☐ tibia
- ☐ clavicle
- ☐ patella

2-5. DEPARTMENT OF MISSING BONES

Label the bones on the following diagram, using terms from this list.

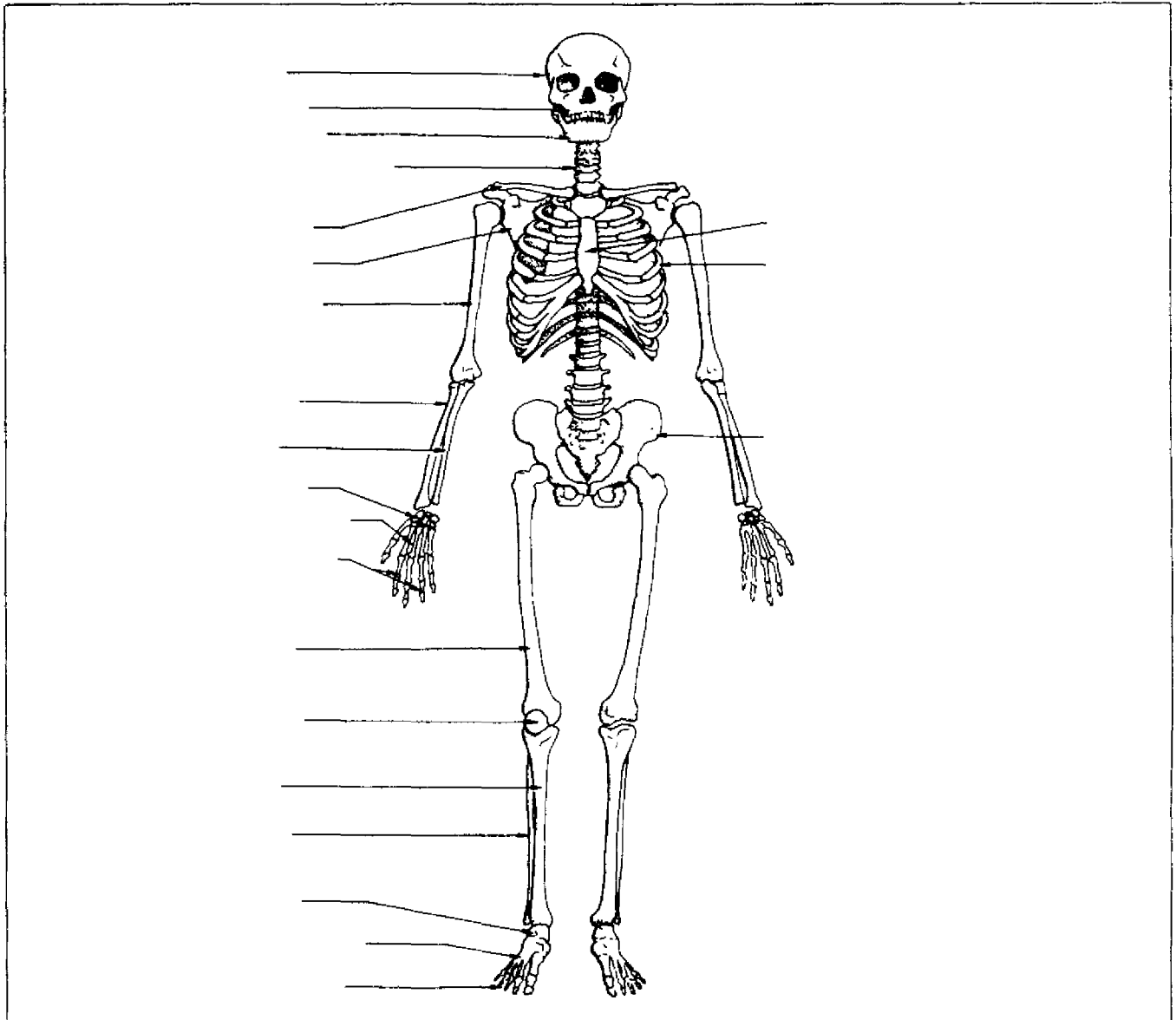
clavicle
fibula
femur

tibia
carpals
scapula

pelvis
tarsals
patella

humerus
cranium
radius
metatarsals
maxilla
vertebra

metacarpals
phalanges
rib
mandible
sternum
ulna



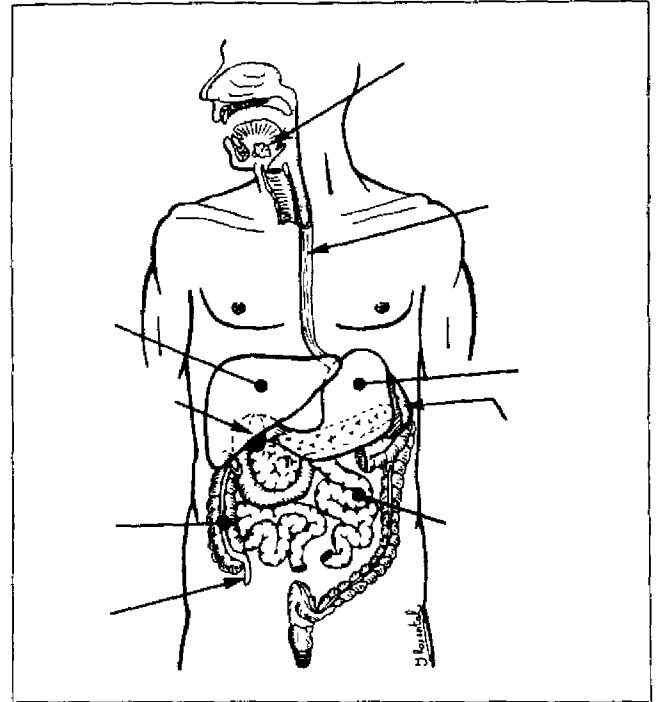
Which bone is missing?

2-6. A FULL BELLY

Label the following diagram, indicating the location of the

gallbladder	liver
stomach	spleen
tongue	appendix
colon	small intestine
esophagus	

Which of these organs are in the right upper quadrant?



2-7. THERE'S A SYSTEM TO EVERYTHING

For each of the following, indicate whether it belongs to

- the skeletal system
- the muscular system
- the nervous system
- the respiratory system
- the circulatory system
- the digestive system
- the genitourinary system

- | | |
|----------------------------------|--|
| <input type="checkbox"/> stomach | <input type="checkbox"/> sternum |
| <input type="checkbox"/> biceps | <input type="checkbox"/> kidney |
| <input type="checkbox"/> lungs | <input type="checkbox"/> gallbladder |
| <input type="checkbox"/> aorta | <input type="checkbox"/> pancreas |
| <input type="checkbox"/> bladder | <input type="checkbox"/> spinal cord |
| <input type="checkbox"/> ulna | <input type="checkbox"/> uterus (womb) |
| <input type="checkbox"/> trachea | <input type="checkbox"/> esophagus |
| <input type="checkbox"/> heart | <input type="checkbox"/> patella |
| <input type="checkbox"/> liver | <input type="checkbox"/> testes |
| <input type="checkbox"/> brain | <input type="checkbox"/> colon |

2-8. CROSSWORD PULSES

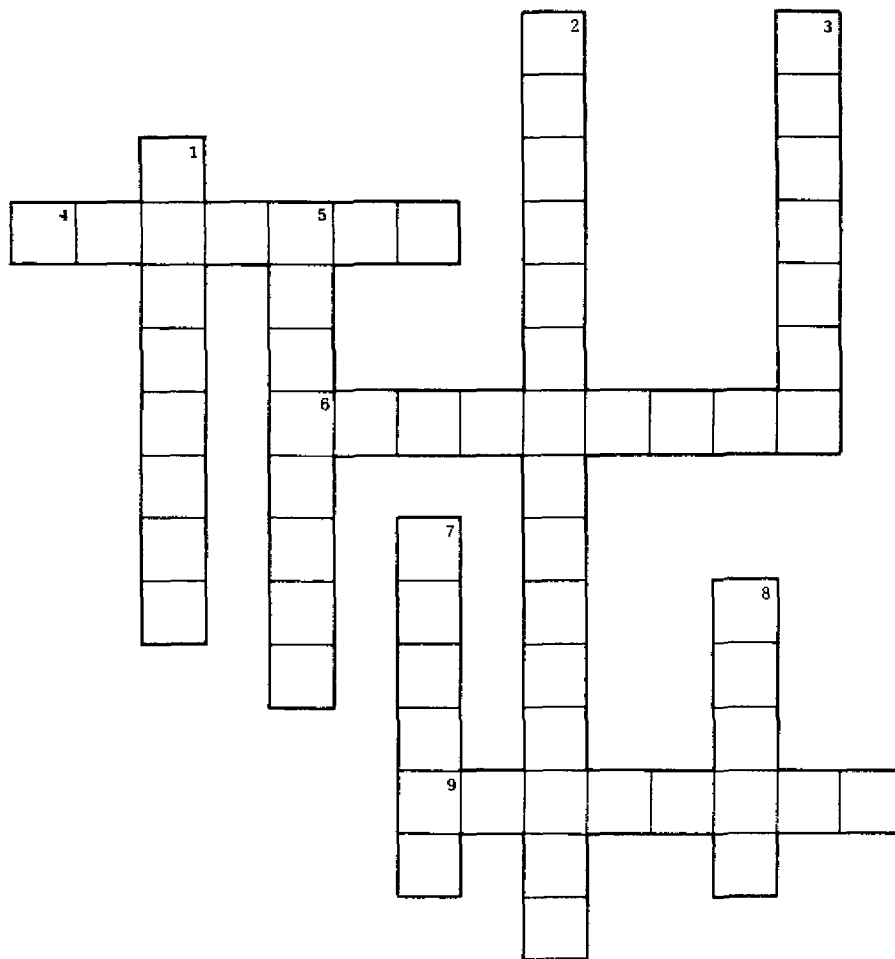
Do you know your pulses? Then you should have no trouble in filling in this crossword.

Across

4. Artery that supplies the brain
6. Artery that supplies the leg
9. Artery that supplies the arm

Down

1. Artery that supplies the forearm
2. Artery that supplies the foot, felt behind the medial malleolus
3. Artery that supplies the lower extremity
5. Artery that supplies the scalp
7. Artery that supplies the hand, felt just proximal to the base of the thumb
8. Other artery that supplies the hand

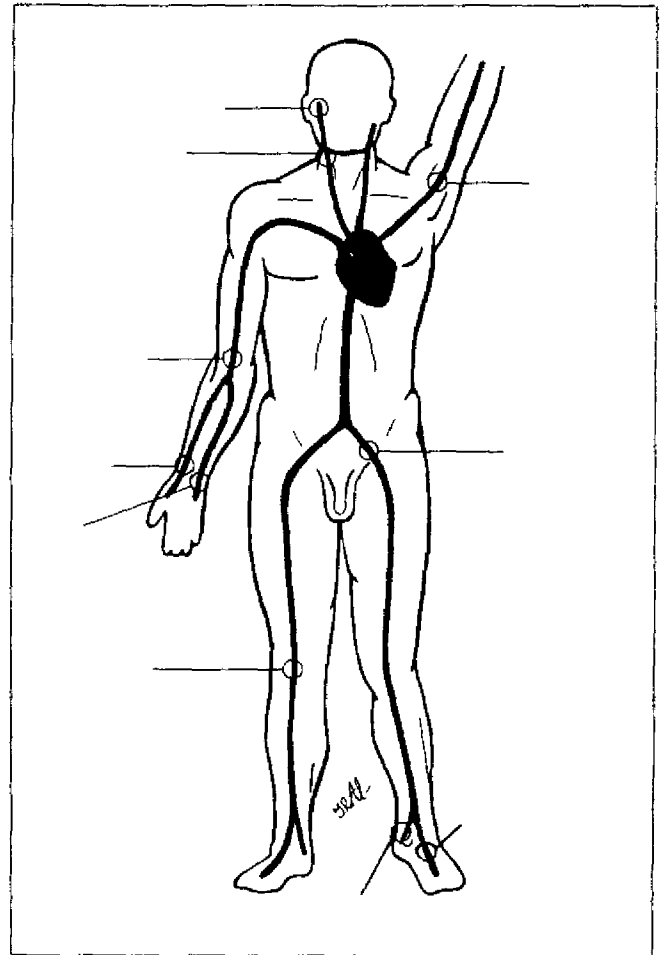


2-9. PULSE THROBS

On the following diagram, indicate the location of

the femoral pulse	the temporal pulse
the radial pulse	the brachial pulse
the carotid pulse	the dorsalis pedis pulse
the posterior tibial pulse	the ulnar pulse
the axillary pulse	the popliteal pulse

Which pulse is usually monitored in deciding whether to start chest compressions in CPR?



3. MEDICAL TERMINOLOGY

3-1. FINDING YOUR ROOTS

Match the following roots with the word that best fits each.

a. cardio	f. hepato	___ skin	___ heart
b. cerebro	g. nephro	___ lungs	___ kidney
c. dermato	h. neuro	___ stomach	___ gut
d. entero	i. oto	___ ear	___ nerves
e. gastro	j. pneumo	___ brain	___ liver

3-2. FROM START TO FINISH

Match the following prefixes and suffixes with the phrase that best fits each.

a. -algia	h. oligo-	___ disease	___ pain
b. brady-	i. -ostomy	___ surgical opening	___ excessive
c. dys-	j. -pathy	___ difficult, painful,	___ inflammation
d. -ectomy	k. -plegia	disordered	___ breathing
e. hyper-	l. -pnea	___ enlargement	___ slow
f. -itis	m. tachy-	___ paralysis	___ urine
g. -megaly	n. -uria	___ rapid	___ surgical removal
		___ few, small amount	

3-3. IT'S GREEK TO ME

Match the following medical terms with the statement that best describes each

a. apnea	i. orchiectomy	___ inflammation of the gallbladder
b. tachycardia	j. oliguria	___ enlargement of the liver
c. hypoglycemia	k. quadriplegia	___ diminished or small urine volume
d. leukocyte	l. cholecystitis	___ runny nose
e. hepatomegaly	m. hemiparesis	___ absence of breathing
f. neuropathy	n. cardiomyopathy	___ low blood sugar
g. arthralgia	o. rhinorrhea	___ inflammation of the intestine
h. enteritis	p. hematoma	___ swelling due to a collection of blood under the skin
		___ surgical removal of the testicle(s)
		___ disease of nerves
		___ pain in the joints
		___ rapid heart rate
		___ paralysis of all four extremities
		___ white blood cell
		___ disease of the muscle of the heart
		___ weakness on one side of the body

3-4. PUT THIS MESSAGE INTO CODE

Beside each of the following phrases, write the medical term that has the same meaning.

EXAMPLE: inflammation of the kidney nephritis

- | | |
|--|---|
| 1. Difficulty in breathing _____ | 7. Blood in the urine _____ |
| 2. Tumor of the nerves _____ | 8. Enlargement of the heart _____ |
| 3. Paralysis of one side of the body _____ | 9. Red blood cell _____ |
| 4. Disease of muscle _____ | 10. Slow heart rate _____ |
| 5. Inflammation of a vein _____ | 11. Inflammation of the inner part of the heart _____ |
| 6. Surgical removal of the stomach _____ | 12. Increased menstrual flow _____ |
| | 13. High blood sugar _____ |
| | 14. Pain in muscles _____ |
| | 15. Surgical removal of the uterus _____ |
| | 16. Pus in the urine _____ |
-

3-5. WHAT'S WRONG WITH JOE?

Joe is feeling terrible. He has myalgias, cephalalgia, and rhinorrhea. He goes to the emergency room, where a doctor examines his retropharyngeal area and does a phlebotomy (causing a hematoma) for tests. The tests show leukocytosis.

Explain in plain English

- What were Joe's symptoms?
- What did the doctor examine? What did the doctor do to Joe?
- What did the test show?

What do you think is wrong with Joe?

3-6. THE HIDDEN LANGUAGE OF MEDICINE

The diagram below contains 54 medical terms or words relating to the body, spelled out horizontally, vertically, or diagonally. We have started you off by finding the word *leg*. How many words can you find? Do you know the meaning of all of them?

H	E	M	A	T	O	C	R	I	T	C	O	S	A	C	R	U	M	B	A	O	R	G	A	N	T	S
I	C	Y	L	I	N	G	R	O	U	T	P	U	P	A	O	N	E	R	C	L	U	I	L	A	M	P
G	R	A	U	S	A	L	E	A	R	T	H	R	I	T	I	S	N	U	O	L	G	O	B	V	A	Y
C	U	S	C	A	P	U	L	A	N	A	N	C	Y	E	M	E	T	N	T	R	A	C	H	E	A	U
O	S	T	E	Y	I	N	E	V	O	I	L	A	L	M	E	R	G	A	U	S	S	V	E	L	O	R
L	N	H	A	N	S	A	G	E	N	E	U	R	O	P	A	T	H	Y	L	A	T	E	I	A	N	I
O	P	E	R	I	S	T	I	C	A	L	L	M	L	O	B	U	S	I	L	E	R	L	O	C	O	A
S	E	N	P	R	E	E	S	U	L	T	O	N	A	R	K	D	Y	S	P	N	E	A	M	R	L	R
T	H	I	T	H	E	M	I	P	L	E	G	I	A	A	R	I	O	N	O	T	C	V	B	O	N	E
O	R	A	N	G	R	U	S	O	L	W	U	L	L	I	M	I	I	L	R	T	I	I	S	O	T	
M	V	N	I	P	L	E	U	R	A	N	S	K	U	L	L	P	R	V	Y	U	O	C	L	N	S	H
Y	E	A	S	N	A	N	C	Y	T	S	T	R	O	U	T	U	I	E	U	S	M	L	E	E	Y	E
A	R	I	D	E	R	M	A	T	I	T	I	S	O	C	H	E	S	T	R	C	Y	B	C	P	A	P
B	A	S	T	U	L	E	M	U	O	O	P	L	O	P	Y	N	C	U	I	A	R	D	A	H	N	A
A	D	A	M	M	L	E	A	M	O	M	E	A	F	A	R	T	H	R	A	L	G	I	A	R	A	T
S	I	L	B	O	W	N	O	M	B	A	Y	S	T	A	T	E	E	K	I	L	I	K	E	I	M	I
S	U	P	I	N	E	R	A	Y	S	C	A	L	D	E	E	N	R	E	L	Y	N	M	E	T	U	T
E	S	O	T	I	R	E	R	S	T	H	Y	P	O	G	L	Y	C	E	M	I	A	A	B	I	S	I
S	H	E	M	A	T	O	M	A	I	N	G	L	U	B	U	L	E	S	I	R	P	T	O	S	I	S
S	O	D	E	L	E	R	E	M	C	O	T	I	T	I	S	N	A	P	N	E	A	N	B	A	S	S

3-7. NEVER A CROSS WORD SHALL PASS AN EMT'S LIPS

Now, for the grand finale! Test your medical (and nonmedical) word power on the Super EMT Crossword Puzzle. If you finish in less than an hour, you win the Webster Walking Dictionary Award.

Across

- 2 Prefix for below, decreased
- 5 Part of the blood vessel
- 8 Part of the verb to be
- 11 Adipose tissue
- 13 Internal organs
- 18 Prefix for increased, excessive
- 19 Prefix for watery
- 21 Abbreviation for by rectum
- 22 Posterior part of the skull
- 25 Abbreviation for eyes, ears, nose, and throat
- 27 Suffix meaning pain
- 28 Prefix meaning air
- 29 Sailor's word for left
- 30 Toes without vowels
- 31 Introduce air into
- 34 Larger bone of the lower leg
- 36 Abbreviation for delirium tremens
- 37 Normal cardiac rhythm
- 39 Eye doctor's specialty
- 43 Doctor for female problems
- 46 How an EMT should behave
- 55 Root word for blood
- 56 Suffix for disease
- 57 Region below the costal arches
- 60 Consistency of bone
- 62 Bone used to create Eve
- 64 Prefix meaning not
- 65 Anger
- 66 Abbreviation for carotid sinus
- 69 Branch of the American military
- 71 Tibia
- 73 Position of stretcher back for patient with chest pain
- 75 Abbreviation for association
- 78 Commonly abused drug
- 81 Prefix for ear
- 83 Suffix meaning tumor
- 84 Woman who has just given birth
- 86 Lying down
- 89 Abbreviation for endotracheal
- 90 Lying face up
- 92 Eat away at
- 93 Poor means to transport the injured
- 94 What one should not get into
- 95 Emergency Medical Services, for short
- 97 Big tooth
- 98 A way to treat constipation
- 101 Place to find the fibula
- 102 Abdomen
- 105 Nearer the midline
- 106 Meaning of the prefix ad-
- 107 EMT wearing blue jeans on duty
- 108 Above, higher than
- 110 Pertaining to the skin
- 112 Olfactory organ
- 114 New York subway line
- 115 Addition to a letter
- 116 Abbreviation meaning right eye
- 117 Ankle bone
- 119 Voicebox
- 121 Correct a manuscript
- 123 Component of the skeleton
- 125 Root word for body or bodily
- 128 Pertaining to the neck
- 130 Power source for rowboat
- 131 Pertaining to the ileum
- 132 1000 ml
- 134 Main artery of the neck
- 136 Roman numeral for 101
- 137 Swelling
- 138 Scandinavian man's name
- 140 Adam's apple came from her
- 141 Abbreviation for a childbirth case
- 143 Suffix for alcohol
- 144 Advanced life support, for short
- 147 Organ for hearing
- 149 Decubitus ulcer
- 151 Abbreviation for left eye
- 153 Santa's first word
- 155 Specialized collection of tissue
- 157 Prefix pertaining to the urinary tract
- 159 Where to find the spleen
- 160 Wrist bone
- 161 Tool to take down a tree
- 162 Eggs
- 164 Prefix meaning both
- 165 Abbreviation for extraocular motions
- 166 Part of a circle
- 167 Major vein of the neck
- 172 0.45359237 kg
- 174 Good, strong pulse
- 177 Prefix for hand
- 179 Abbreviation for fever of unknown origin
- 180 Abbreviation for nosogastric
- 182 What a mnemonic does
- 184 Muscle that causes a limb to bend
- 187 Santa's second word
- 188 Side of the chest where the heart sits
- 191 Suffix meaning inflammation

- 193 Abbreviation for month
- 194 Suffix meaning pain
- 195 Score in football
- 196 Abbreviation for obstetrics
- 197 Abbreviation meaning by mouth
- 198 Abbreviation for hemoglobin
- 199 Most deceased
- 202 Branch of the military
- 204 Prefix meaning joint
- 207 Abbreviation for physical examination
- 208 Prefix meaning air or lung
- 211 A bad disease
- 212 Posterior office of the body
- 214 Where the cervical vertebrae are
- 216 Reference source
- 218 First half of talk
- 219 Taut
- 220 Another poor way to transport the injured
- 222 Pharynx and larynx
- 224 Abbreviation for physician's assistant
- 225 Keeps the metacarpals warm
- 227 Prefix relating to the ear
- 228 Prefix for into or within
- 229 Simple sugar
- 230 Prefix for hip
- 231 Inflammation of the testicles

Down

- 1 Prefix meaning cell
- 2 Prefix meaning half
- 3 Abbreviation for year
- 4 Latin word for an opening
- 5 Unit of electromotor force
- 6 Type of food ulcer patients should avoid
- 7 Suffix pertaining to the mouth
- 8 What to put on a sprain
- 9 How an EMT addresses his crew chief
- 10 Tear
- 11 Distal
- 12 Lowest female voice
- 13 Remnant
- 14 Meaning of intra-
- 15 Abbreviation for street
- 16 Not a friend
- 17 What to do with data
- 20 Major bone of the forearm
- 23 Author of this book
- 24 Shaved (head)
- 25 Prefix meaning like a sieve
- 26 Backslide
- 31 How an EMT feels at the end of a shift
- 32 Abbreviation for rule out
- 33 What the prefix ad- means
- 34 Prefix meaning rapid
- 35 Below

- 120 Breastbone
- 133 Issue forth
- 135 Prefix meaning egg
- 139 Part of the spine fused to the pelvis
- 142 Means for immobilizing spine-injured patient
- 145 Prefix meaning below
- 146 Abbreviation meaning by mouth
- 148 Erythemas around the eyes:
- 149 Abbreviation for blood pressure
- 150 Initials of Dwight Livingstone Jimcracker
- 152 Abbreviation meaning symptoms
- 153 Sound of a horse or a zebra
- 154 Prefix for pertaining to an egg
- 156 Prefix for kidney
- 158 Edge
- 159 Angle of _____ beside second intercostal space
- 163 Chemical suffix
- 165 Prefix relating to the intestines
- 166 Anne Frank's initials
- 168 Suffix pertaining to the urine
- 169 EMT's equipment
- 170 Prefix meaning stone
- 171 Prefix meaning male
- 173 Abbreviation meaning diagnosis
- 175 Miss Peep's first name
- 176 Prefix meaning white
- 178 Person knowing basic emergency care is a first _____
- 180 Umbilicus
- 181 Prefix meaning sugar
- 183 Abbreviation for sublingual
- 185 Patent
- 186 Waken
- 189 Federal agency overseeing drug safety
- 190 What the skin does in dehydration
- 192 Pronto
- 196 Prefix meaning vision or sight
- 198 Where to find the calcaneus
- 200 Nodding pain
- 201 Baby dogs
- 203 Prefix meaning blood vessel
- 205 Abbreviation for tuberculosis
- 206 10-4
- 208 Abbreviation for physical therapy
- 209 Prefix meaning new
- 210 Women's greatest problem
- 211 Clinicopathologic conference
- 213 What cys- means
- 215 Abbreviation for slow IV rate
- 217 International distress signal
- 220 Abbreviation for junior grade
- 223 Abbreviation meaning before meals
- 226 Where to transport the ill and injured

