Chapter 8

THE BASIC TRAINING ENVIRONMENT

LAUREL BROADHURST, MD, MPH; K. MILLS McNEILL, MD, MPH, PhD; ROSE MARIE HENDRIX, MD, MPH; JAMES WRIGHT, MD; AND LAUREL MAY, MD, MPH

INTRODUCTION

GOALS OF BASIC TRAINING
  Values
  Skills

RECRUIT DEMOGRAPHICS AND ATTRITION

TRAINING ENVIRONMENT
  Air Force
  Army
  Navy
  Marine Corps

INSTRUCTORS
  Air Force
  Army
  Navy
  Marine Corps

ENTRANCE PROCESSING
  Screening
  Immunizations

CURRICULUM
  Air Force
  Army
  Marine Corps
  Navy

PSYCHOLOGICAL ASPECTS OF BASIC TRAINING

GRADUATION CRITERIA

SUMMARY
L. Broadhurst; formerly, Major, Medical Corps, US Army; Epidemiology Consultant, 7th MEDCOM and 10th MEDLAB, APO AE 09180, Landstuhl, Germany; currently, Staff Physician, Weaverville Family Medicine Associates, 117 Hillcrest Dr, Weaverville, NC 28782

K. M. McNeill; Colonel, Medical Corps, US Army (Retired); formerly, Chief, Preventive Medicine Services, Dwight David Eisenhower Army Medical Center, Fort Gordon, GA 30905-5650; currently, Medical Director for Bioterrorism Preparedness, Office of Epidemiology, Mississippi State Department of Health, 570 E. Woodrow Wilson, PO Box 1700, Jackson, MS 39215-1700

R. M. Hendrix; Formerly, Lieutenant Colonel, Medical Corps, US Army; Chief, Preventive Medicine Service, US Army Medical Department Activity, Fort Jackson, SC 29207-5720, currently, Medical Director, Santa Cruz County Health Clinic, 1080 Emeline, Santa Cruz, CA 95060

J. Wright; Colonel, Medical Corps, US Air Force (Retired); formerly, AL/AOE, 2601 West Road, Suite 2, Brooks Air Force Base, Texas 78235-5241; currently, Occupational Medicine Physician, Concentra Medical Centers, 400 East Quincy, San Antonio, TX 78215

L. May; Commander, Medical Corps, US Navy; Epidemiologist, Naval Environmental and Preventive Medicine Unit 6, Naval Medical Clinic, 480 Central Avenue, Pearl Harbor HI 96860-4908
INTRODUCTION

Basic training is the process by which civilians enter one of the most honored of all careers, military service to one’s country. This is a monumental process of transforming individual men and women into soldiers, sailors, airmen, and Marines prepared to defend their country. To understand military preventive medicine, one must understand the method of transition, which brings civilians into a military career, known as basic training.

Unlike college freshmen in dormitories across the country, military basic trainees, or recruits, eat, sleep, and breathe together in an intensely congested environment. There is little free time between classes, there is no choice of curriculum, and there is mandatory, daily physical training; recruits belong to the military 24 hours a day. Oftentimes, there is little change of pace even on weekends. Like a freshman year at college, this is a “coming of age” time for recruits. Many have never before been away from home, and even those who have may not have been outside their region of the country. The military promises opportunities to travel and often the first big trip is to a military basic training installation.

No civilian institution has as its goal to transform large numbers of individuals from all over the country into cohesive, combat-prepared units in a short time while maintaining consistently high training standards. This chapter will describe military basic training and the medical issues that characterize this environment. Each service has a specific term for its initial recruit training, but, for simplicity’s sake, this experience will be referred to as “basic training” in this chapter. And, rather than referring to “basic trainees,” “airmen basic,” or “soldiers, sailors, airmen, and Marines,” “recruits” will be used to describe new members of all four services.

GOALS OF BASIC TRAINING

The US Air Force, Army, Marine Corps, and Navy each have separate basic training facilities, but the services have the same goal for basic training. They attempt to transform civilian recruits into motivated, disciplined airmen, soldiers, sailors, and Marines who are trained and able to perform basic military skills in any assignment. This transformation results from the total immersion of recruits in the basic training environment. Basic training is an intensive, comprehensive process that transforms civilians into servicemembers by inculcating military values and teaching military skills.

Values

The atmosphere at basic training installations fosters patriotism, dignity, and pride in being part of the military. One of the most important tools for a successful basic training experience is the right attitude, for both drill instructors and recruits. The importance of the individual recruit to the military and to the nation is emphasized during the training. Training has been designed to bring about initial development and constant reinforcement of concepts that are important to the military. These concepts are integral parts of military tradition and include ethical standards, good order and discipline, teamwork, individual initiative, and commitment.

Skills

Training promotes a desire in recruits for self-improvement and achievement by providing knowledge and skills basic to all military personnel and rewarding performance in individual and unit tasks. Intensive training using military standards is an integral part of the environment, as are high standards in other study areas, positive military role models, and repeated opportunities to reinforce basic military skills. It is through challenging professional training that an individual gains the degree of confidence, self-discipline, commitment, and technical and physical competence required to make a contribution to the military mission. And it is through training that individuals develop the sense of team spirit necessary for success in a unit.

RECRUIT DEMOGRAPHICS AND ATTRITION

Despite the common goals of basic training in all the services, there are differences. To appreciate the differences in basic training environments for each service, it is useful to compare the demographics of each service’s recruits (Table 8-1) and the number of individuals beginning and completing basic training programs annually. Rates of graduation from basic training in 1995 for the four services can
be seen in Table 8-2. A total of 175,270 individuals completed military basic training in 1995. Since the draft ended in 1973, the US military has been an all-volunteer force. The number of individuals completing the initial physical examination and entering basic training is much smaller than during times of war. For example, draftees (not counting volunteers) in basic training in 1918 numbered 2,294,048. In 1943, during World War II, the number was 3,323,970. During the Korean War, 551,806 inductees were sent to basic training in 1951, and during the Vietnam War, the largest number of draftees entering basic training was over 382,000 in 1966.¹

There was service-wide downsizing in the 1990s. In the Army, the number of recruits completing basic training went from a high of 89,539 in 1991 to 67,250 in 1995, and that downward trend will undoubtedly continue.² However, the percentage of female recruits has increased, as has the percentage of those having at least a high school diploma. As Table 8-1 shows, the service with the lowest average percentage of females is the Marine Corps at 6.3%. Nearly all recruits in all the services hold a high school diploma or general equivalency diploma, although the Air Force stands out with nearly 15.4% of its recruits having some college experience.³ This is relevant because “[s]tudies of attrition have consistently shown that persons with high school diplomas and Armed Forces Qualification Test scores in the upper 50th percentile have lower first-term attrition rates.”⁴(p3)

Table 8-2 details the attrition rates for each service. Rates of graduation from basic training of less than 100% are a problem not only for the recruits who fail to graduate but also for the military itself. It is expensive to recruit individuals, qualify them medically for basic training, transport them to basic training sites, pay them, clothe them, house them, feed them (all of this even while those who have failed await separation), and then transport them home. In 1994, there was an overall service attrition rate of 10.47% for recruits separated in the first 2 months.

<table>
<thead>
<tr>
<th>Service</th>
<th>Mean Age (yrs)</th>
<th>Female (%)</th>
<th>HS (%)</th>
<th>HS Diploma (%)</th>
<th>Some College (%)</th>
<th>Bachelor’s Degree (%)</th>
<th>Graduate Degree (%)</th>
<th>Missing Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Force</td>
<td>20.2</td>
<td>24.8</td>
<td>0.1</td>
<td>82.2</td>
<td>15.4</td>
<td>1.6</td>
<td>0.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Army</td>
<td>20.6</td>
<td>18.6</td>
<td>0.3</td>
<td>87.0</td>
<td>6.1</td>
<td>3.3</td>
<td>0.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>19.8</td>
<td>6.3</td>
<td>0.2</td>
<td>98.1</td>
<td>0.8</td>
<td>0.8</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Navy</td>
<td>20.3</td>
<td>16.8</td>
<td>2.4</td>
<td>93.1</td>
<td>1.5</td>
<td>2.0</td>
<td>0.1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

* without a high school diploma
Data source: Accession Medical Standards Analysis and Research Activity, Walter Reed Army Institute of Research, Silver Spring, Maryland.

### Table 8-2

<table>
<thead>
<tr>
<th>Service</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Entering</td>
<td>Graduating</td>
</tr>
<tr>
<td>Air Force</td>
<td>27,300</td>
<td>24,570</td>
</tr>
<tr>
<td>Army</td>
<td>68,612</td>
<td>63,235</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>30,535</td>
<td>26,367</td>
</tr>
<tr>
<td>Navy</td>
<td>36,784</td>
<td>31,744</td>
</tr>
</tbody>
</table>

Source: Preventive Medicine representatives in the four services
of service, with an average investment in each separated recruit estimated to be approximately $12,320. This cost the services over $230 million in 1994. Many of these recruits are separated for preexisting medical conditions. In the era of voluntary enlistment, applicants who wish to join the service have an incentive to conceal medical conditions that may be disqualifying. Others are separated because they fail to meet minimum performance criteria (eg, failing physical training or weight standards), failing inspections, or failing to adapt otherwise to basic training. Recruits who are in good physical shape have a greater chance of meeting overall military performance standards. Those who struggle to meet physical standards often lose their motivation, both mental and physical, to meet other military requirements. Recruits are better prepared to succeed in basic training and are expected to have fewer injuries during training if recruiters have fully informed them of the physical fitness standards required and encouraged them to obtain those standards before reporting to basic training camps.

TRAINING ENVIRONMENT

Air Force

Air Force basic training occurs at one site: Lackland Air Force Base in San Antonio, Tex. Recruits complete a 30-day curriculum, which is spread over 6 weeks. Before training starts, recruits spend an average of 2 days on administrative inprocessing. They live in open-bay dormitories that routinely house 55 to 58 recruits (a maximum of 60) per bay. There are 20 separate bays per building, and each building regularly houses between 800 and 1,000 recruits. Recruits live, eat, and train together as a flight, which is about 55 recruits strong and is same-sex. Each large building has its own dining hall, academic classrooms, staff office complex, laundry room, small dispensary, and small post office. In addition to time spent in the classroom, a major portion of the training—notably, uniform and dormitory maintenance and inspections—occurs in the open-bay dormitories and adjacent dayrooms. Other activities, such as marksmanship, the Confidence Course, drill, physical conditioning, and ceremonies, are held outdoors year round.

In the Air Force, daily showers are mandatory, and antibacterial soap is provided. Dormitory cleanliness is strictly enforced, with laundry done at least twice a week and bed linens changed once a week. Recruits arrange their beds head-to-foot so that the transmission of airborne diseases while they sleep is reduced. Foot care is stressed, with special attention given to the prevention of blisters. Knowing that recruits prefer to sleep with their socks on (to save dressing time in the morning), there is a written policy that prohibits this practice, thus allowing feet to dry overnight. The recruits carry canteens at all times, and instructors encourage them to drink often and so reduce the cases of dehydration from training. Sports drink is available in the dining halls to add electrolytes to their diet and further aid in hydration. Every meal features low-fat, low-cholesterol menu items that recruits may choose. Using tobacco products and drinking alcohol is prohibited (24 hours a day, 7 days a week) during the program. Recruits undergo specific training designed to keep them from starting to smoke or from returning to this habit.

Army

As of 1996, recruits are trained at six Army basic training centers (ie, Fort Benning, Ga; Fort Jackson, SC; Fort Knox, Ky; Fort Leonard Wood, Mo; Fort McClellan, Ala; Fort Sill, Ok) for 8 weeks. The traditional unit of housing is the barracks. The maximum number of recruits in a barracks area depends on the configuration of the building, but a minimum of 72 square feet is required per recruit to limit the spread of communicable diseases. This space allocation does not include stairs, halls, latrines, utility rooms, recreation areas, storage rooms, or administrative areas. This square-footage rule also applies to temporary facilities and tents. Some post commanders, however, have obtained waivers that reduce the minimum to 62 square feet per recruit. In these cases, barracks are inspected every 6 months and the waiver renewed if the barracks passes the inspection. Commanders must ensure that scheduling of common-use facilities, such as dining facilities, classrooms, theaters, and latrines, avoids overcrowding. Heating and ventilation in troop barracks is controlled for both health and comfort reasons.

Since 1994, the Army has emphasized sex integration. There is a 25% to 75% optimum ratio of females to males in each company of 60 recruits, and the companies are integrated down to and including the squad level, which consists of 8 recruits. Buddy teams are same-sex to facilitate the conduct of hand-to-hand and bayonet training. Both sexes must meet the same standards for order, discipline,
health, welfare, and morale. Males and females are required to maintain high but different standards for physical training; road marches are integrated.

Marine Corps

Marine Corps recruits are trained for 11 weeks, with the first week consisting of induction time, at recruit depots in San Diego, Calif, and Parris Island, SC. The recruit depots attempt to maintain uniform training and administration except where differences in mission, geography, climate, or facilities require variations. All recruits are housed in open-squad bays in Platoons (65 recruits per platoon). The length of the training day does not normally exceed 10 hours. This does not include routine time allotted for personal hygiene, barracks maintenance and cleaning, devotional services, and meals. Recruits are given at least 20 minutes to eat each meal. Recruits are permitted 8 hours of uninterrupted sleep, 1 hour of uninterrupted free time each day except when in the field, and 4 hours of free time on Sundays and holidays. Visits are allowed but only during specified times established by the post commanders.11,12 Males and females are trained separately.

Navy

US Navy recruits complete a 9.5-week training cycle at the Navy boot camp at Great Lakes Naval Training Center, Great Lakes, Ill. Recruits live in open-bay barracks with a maximum capacity of 88 recruits. Only one sex occupies a bay. Bathroom facilities are also open-bay style. Bed linens are changed weekly. Showers are required once daily. Shoes or shower flip-flops are required to be worn at all times except when in bunks. The recruits do everything as a large group: they eat together, shower at the same time, and sit in class together. They can march up to 25 miles a week traveling across the base to go to classes and meals. Field training for the Navy consists of fire fighting, weapons firing, and line handling training, all of which are conducted indoors. During the warmer weather months, physical training is held outdoors.13

INSTRUCTORS

Key leadership personnel in military basic training camps are the drill instructors. Besides the military recruiter, these are often the first military role models that the recruits have. Drill instructors hold at least at the rank of E-5, have usually been recommended by their commanders for training as drill instructors, and must have no disciplinary actions against them. The length of drill instructor training is roughly equivalent to the length of basic training for each service and consists of topics the drill instructors will be teaching the recruits plus effective teaching techniques. Their training includes such topics as leadership, stress management, counseling, fitness training, weapons training, drill and ceremony, wearing of the uniform, administrative issues, safety issues, equal opportunity issues, and integration of men and women. Drill instructors face a rigorous work schedule; days can last from 3:30 AM to 8:00 PM. The usual length of an assignment as a drill instructor is 2 to 3 years.14

All leaders who are associated with recruit training must ensure that training is conducted in a professional manner. Hazing, maltreatment, abuse of authority, or other illegal alternatives to leadership are counterproductive practices and are expressly forbidden. Instructors are strictly charged to treat all recruits firmly, fairly, and with dignity and are held accountable for their actions. Instructors are trained to be constantly alert for recruits who have physical or other difficulties and are taught to question recruits demonstrating injury, illness, or other maladies regarding the nature of the problem. Safety is of the utmost importance in basic training and the priority of all instructors. Instructors who are not in the military attend training courses on how to train recruits in a military fashion and are certified annually. The selection, training, and supervision of drill instructors and civilian instructors have been improved; among other innovations, instructors now attend detailed training on sexual harassment issues and how to train recruits to respond if sexual harassment occurs.

With the integration of women into military units, the issues of sexual harassment and sex bias have needed to be addressed. As an organization, the military has several risk factors for sexual harassment. The traditional masculine identity and horizontal and vertical cohesion in military units may foster counterproductive attitudes toward women. In addition, several highly publicized allegations of sexual harassment (such as the Navy’s “Tailhook” scandal in 1991 and the rape and sexual assault trials at Aberdeen Proving Ground, Md, and several other Army posts in late 1996 and early 1997)
The Basic Training Environment

have focused the public’s attention on this issue. The Department of Defense has defined sexual harassment as “a form of sex discrimination that involves unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when (1) submission to such conduct is made either explicitly or implicitly a term or condition of a person’s job, pay or career, or (2) submission to or rejection of such conduct by a person is used as a basis for career or employment decisions affecting that person, or (3) such conduct has the purpose or effect of unreasonably interfering with an individual’s work performance or creates an intimidating, hostile or offensive working environment.” Program guidelines have been provided that

- outline training requirements for each unit and how these training methods will be evaluated to make sure they are working,
- explain how individuals who feel they have been subjected to sexual harassment may seek redress,
- prohibit reprisals against individuals because of their complaints,
- establish procedures to investigate these complaints,
- establish toll-free advice and counseling hotlines to provide information on sexual harassment, and
- inform military and civilian personnel that failure to comply with established policies may be reflected in negative annual performance ratings and could result in adverse administrative, disciplinary, or legal action.15

Air Force

Air Force military training instructors’ demographics generally parallel that of their students; in 1998, out of a total of 307 training instructors, 15.6% were female. The training instructors represent virtually every Air Force specialty. All enlisted staff complete a 5-week instructor course, plus on-the-job training that spans an additional 14 weeks at Lackland Air Force Base.

Army

In 1995, US Army drill instructors numbered approximately 2,200, or 1 drill instructor for every 40 recruits, with 10% being female. Drill instructor training takes 8 weeks and is conducted at Fort Jackson, Fort Leonard Wood, and Fort Benning.

Navy

US Navy instructors are all petty officers (E-5 and above) and 16% are female. Six hundred seventy instructors were needed in 1998, and they were all trained for 8 weeks at the Navy Instructor Training and Recruit Division Commander “C” School at Great Lakes Naval Training Center.

Marine Corps

Each year, there are approximately 270 Marine Corps male and female drill instructors at either Parris Island (males and females) or San Diego (males). Drill instructor school is 8 weeks long, and approximately 20% of instructors are female. Drill instructors are selected from throughout the Marine Corps and encompass a cross-section of military occupational specialties.

ENTRANCE PROCESSING

Basic training begins at the reception battalion, where the recruit is brought under military control, completes entry processing, and begins the basic training process. This initial indoctrination from civilian to military life includes a “moment of truth.” For example, in the Air Force’s version of the “moment of truth,” all recruits receive a “shake-down inspection” in their dormitories within 24 hours of arrival. The staff removes all nonprescription drugs, weapons, valuable items, pornography, tobacco, and other contraband from the recruits for the duration of basic training. Any illegal items are disposed of and the rest is returned to the recruit upon departure. All services have similar procedures. During the rest of entrance processing, hair is cut if needed, and military uniforms are issued along with name plates and identification tags (“dog tags”). Recruits are fitted for gas masks and helmets. Eyeglasses are issued if needed and hearing protection provided. Identification cards are provided, and all the paperwork needed to bring the recruit and his or her family into the military system is begun.

Screening

Medical screening is a significant part of entrance processing in basic training camps, although past
medical records are not required. Recruits have already undergone and passed physical examinations for induction at military entrance processing stations, but when they arrive at the training site, they must be in good health and meet the required height and weight standards. To be eligible for military service, individuals are screened to ensure they have no acute diseases or physical impairments to training (see Chapter 7, Evolution of Military Recruit Accession Standards). Recruits are not subjected to any form of physical conditioning, swimming, running, or unnecessary stress before receiving a medical examination. Blood group and type are determined. This information is recorded in the medical records, on the military identification card, and on the dog tags the recruits are given, but the prevalence of errors in one or all of these has been estimated to be more than 10%. Immunizations are given and tuberculosis skin tests are placed. Female trainees are tested for pregnancy with urine tests at the entrance processing stations and again with serological tests at basic training; some installations also screen for rubella. Human immunodeficiency virus (HIV) screening is repeated for recruits whose preaccession test is more than 6 months old. Medical records from the Military Entrance Processing Stations are screened for incomplete physical examinations and deficiencies. Recruits with possibly disqualifying medical conditions discovered at this point will be evaluated and a decision made about granting them a waiver. Recruits with hearing or vision deficiencies are reevaluated. Dental panographic x-rays for identification are performed.

**Immunizations**

All accessions receive immunizations early during their processing for basic training (Table 8-3). These immunization policies are coordinated by all the services, which often rely on counsel from the Armed Forces Epidemiological Board. Female recruits are tested for pregnancy before being shipped to basic training and are again tested after arrival and before receiving live virus vaccines. If the woman is not pregnant, all immunizations are given, along with precautions not to become pregnant for 3 months after the live-virus vaccines are administered. These include influenza, polio (inactivated), measles, tetanus-diphtheria, and rubella vaccinations. Recruits also have at times received immunizations against adenovirus types 4 and 7 and meningococcal meningitis. Additionally, Navy and Marine Corps recruits receive the mumps immunization year round. As of January

<table>
<thead>
<tr>
<th>Immunizing Agent</th>
<th>Air Force</th>
<th>Army</th>
<th>Marine Corps</th>
<th>Navy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenovirus (types 4, 7) *</td>
<td>—</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Anthrax †</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>x</td>
<td>†</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Influenza</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Measles‡</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Meningococcal meningitis (A, C, Y, W135)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Mumps</td>
<td>—</td>
<td>—</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Polio (inactivated polio vaccine, eIPV)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Rubella‡</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Tetanus-diphtheria</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Varicella §§</td>
<td>§§</td>
<td>§§</td>
<td>§§</td>
<td>§§</td>
</tr>
</tbody>
</table>

x: to be given

*Due to an interruption in the manufacture of this vaccine, no service is administering adenovirus vaccine at publication time.
†First priority is servicemembers deployed to high-risk areas, then other active servicemembers, then recruits
‡Services have the option of immunizing only seronegative recruits (based on testing)
§First recruits are screened, then susceptibles are vaccinated
The Basic Training Environment

In 1999, hepatitis A vaccine is given to Air Force, Marine Corps, and Navy recruits only. Varicella immunization policy differs among the services, and the Army is considering changing its policy of not administering this vaccine to any recruits. Anthrax vaccine has been instituted by all services for universal immunization but in phases based on priority; it will eventually be given to recruits.

The adenovirus vaccine has only been used by the military, specifically the Army, the Navy, and the Marines; the Air Force trains in a mild climate where adenovirus outbreaks may be less likely. Air Force recruits receive adenovirus vaccination only when there is evidence of active disease transmission. (At the time of publication, adenovirus vaccine production has been terminated by the manufacturer; a new source of vaccine remains to be found.) Adenovirus vaccine is ideally given year round. In years when the vaccine has been in short supply, however, stocks have been stretched by administering it only during the cold-weather months, when the virus is most prevalent. Any adenovirus outbreak must be investigated to ensure that it is caused by adenovirus and not a more serious agent, such as group A streptococci. In installations where high rates of respiratory virus infections have been identified, prophylaxis may be initiated against such streptococcal outbreaks with bicillin or erythromycin.

A device developed and used by the military since the 1950s to facilitate mass immunization is the jet injector gun. It uses compressed air to aerosolize vaccines and embed the vaccine particles in the subcutaneous tissue or muscle. Personnel can be vaccinated at a rate of nearly 1,000 an hour. It is simpler, faster, and more economical than the classic method using a needle and syringe. Even though in 1988 the Armed Forces Epidemiological Board found that there was only a very small risk of transmitting hepatitis B or HIV from one vaccinée to the next if the guns were used and maintained correctly by trained technicians, the issue of jet gun safety and maintenance was reconsidered by the Board in 1997. They concurred with the Department of Defense's decision to discontinue use of the jet gun except during public health emergencies.

CURRICULUM

Each service has unique training requirements, but all have classroom, field, and physical fitness components. The information taught during basic training is extensive because it must prepare civilians for their career as military servicemembers. Each service has specific curriculum requirements prescribed to the half hour for each academic topic to be covered. A general overview of each curriculum follows, and Table 8-4 holds a breakdown of broad topic areas.

Air Force

During the 6-week basic training course in the Air Force, topics such as uniform wear, weapons training, the history and mission of the Air Force, military codes of conduct, and health topics (e.g., sexually transmitted disease prevention, substance abuse control, stress management) are taught. In addition to classroom training, drill takes place on

<table>
<thead>
<tr>
<th>TABLE 8-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOURS (AND PERCENTAGE OF TOTAL TIME) SPENT BY RECRUITS IN VARIOUS SUBJECTS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics</th>
<th>Army</th>
<th>Navy</th>
<th>Air Force</th>
<th>Marines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military Subjects†</td>
<td>80 (26)</td>
<td>95 (66)</td>
<td>66 (30)</td>
<td>137 (31)</td>
</tr>
<tr>
<td>First Aid</td>
<td>18 (6)</td>
<td>NA</td>
<td>6 (3)</td>
<td>12 (3)</td>
</tr>
<tr>
<td>Military Training‡</td>
<td>81 (27)</td>
<td>38 (27)</td>
<td>113 (51)</td>
<td>98 (21)</td>
</tr>
<tr>
<td>Physical Training</td>
<td>47 (16)</td>
<td>NA</td>
<td>26 (12)</td>
<td>65 (14)</td>
</tr>
<tr>
<td>Weapons Training</td>
<td>78 (26)</td>
<td>11 (8)</td>
<td>10 (5)</td>
<td>145 (32)</td>
</tr>
<tr>
<td>Duration</td>
<td>8 wk</td>
<td>9.5 wk</td>
<td>6 wk</td>
<td>11 wk</td>
</tr>
</tbody>
</table>

NA: not applicable
† Based on the author's grouping of subjects into general categories
‡ Military subjects include service-specific missions, history, customs and courtesy, and code of conduct
§ Military training includes subjects such as base and barracks maintenance, drills, and service-specific missions
large asphalt pads adjacent to the dormitories. Recruits are detailed to perform groundskeeping tasks and basic maintenance of common areas within and around dormitories, plus familiar activities like “kitchen patrol,” litter patrol, painting, and messenger service. Recruits wear necessary protective gear for these details, such as gloves, goggles, steel-tipped boots, ear protection, and coveralls.

Additionally, there are 4 hours of academic classes that teach recruits about principles of fitness and exercise. Recruits must complete a 2-mile run by the end of training in less than 18 minutes for males and 20 minutes 30 seconds for females. To prepare for this, recruits run in fitness ability groups on base roads for an average of 3 days per week and 25 minutes per session. Recruits also receive conditioning for the upper body, doing a series of strengthening exercises after each run. Recruits participate in a 21-obstacle “confidence” course. They do not run the course for time. The goal is to overcome each obstacle, meet the challenges, and gain confidence. Key commanders and staff meet monthly with the Preventive Medicine Group, an assemblage of health care professionals who advise the training cadre. The group’s areas of expertise include preventive medicine, occupational medicine, orthopedics, public health, health promotion, nutrition, podiatry, sports medicine, and psychology. Together, the group members identify problems, identify opportunities for intervention, and work with the training staff to implement the most promising interventions.

Army

In addition to training in such subjects as use and care of weapons, military history, and military codes of conduct, recruits receive significant training in health and medical topics. As soldiers spend significant amounts of time in the field, recruits are trained to understand their increased susceptibility to disease and infection under field conditions. Individuals perform field sanitation duties, and foot and body hygiene practices are stressed. Recruits are trained in first aid so they can appreciate the significance of and provide prompt, effective first aid in the field. Each recruit is taught the skills needed to evaluate a casualty, basic cardiopulmonary resuscitation, how to treat burns, how to prevent bleeding and shock, and how to splint fractures. Training in how to transport a casualty is also stressed, as this is critical to the Army’s mission in the field. An introduction is given to nuclear, biological, and chemical weapons, all military occupational hazards. Because recruits are exposed to the elements during field training exercises, preventive medicine topics, such as prevention and first aid for heat and cold injuries, are stressed. Personal protection measures against biting insects are emphasized and practiced.

Among the fitness topics taught are weight control, diet and nutrition, smoking cessation, control of substance abuse, and stress management. Personal health training includes the understanding of how to use the Army system of health care and preventive medicine and the importance of immunizations, self-examination for cancer, and hearing conservation. Infection with HIV is medically disqualifying for entry into military service, and HIV testing is done at regular intervals for soldiers. Therefore, a great deal of time is spent in basic training educating servicemembers about HIV. The difference between HIV infection and acquired immune deficiency syndrome is explained, methods of transmission of the virus and risk factors for HIV infection are discussed, and protective mechanisms that will reduce the risk of HIV transmission are emphasized. Recruits are well trained in what to expect if they acquire HIV, which includes counseling, medical care provided, changes in their status in the Army, and assignment restrictions.

Physical fitness has a direct impact on combat readiness, and physically fit recruits are assets to the Army. The Army emphasizes that exercise must be performed regularly to provide a training effect, and the intensity of exercise must gradually increase to improve the components of fitness. The physical fitness training program in basic training helps recruits make the transition from what can be a sedentary civilian life to a physically demanding military life. Recruits arrive at various levels of physical fitness and physical skill levels. While women are able to participate in the same program as males, often they must work harder to perform at the same level. Using ability groups for running, for example, alleviates this situation.

Special training is considered for recruits who fail to progress at the same rate as the unit or group. Commanders are responsible for monitoring physical training to ensure training injuries are kept to an acceptable level and to monitor for overtraining, which can result in rhabdomyolysis. Recruits are encouraged to report excessively dark urine and excessive muscle pain, both symptoms of this condition.

Installation commanders ensure that close working relationships develop among the training battalions, the supporting medical treatment facility, and their community mental health, preventive
Marine Corps

The first week of recruit training is the induction into the Marine Corps, during which recruits receive medical and dental examinations, aptitude confirmation tests, receive their initial issue of clothing and equipment, and are assembled into companies, series, and platoons. For the next 3 weeks of training, recruits concentrate on physical conditioning, academics, and close-order drill. Physical training (PT) is varied and progressive, with 64.5 hours spent in PT. Males are trained in close combat and bayonet fighting, as well as unarmed combat through hitting skills instruction and boxing matches. Female recruits do not receive training in these areas but focus on self-defense skills against armed and unarmed opponents. Additionally, combat water survival training is provided for both sexes, along with day and night navigation, hand and arm signals, camouflage, escape and evasion, and enemy vehicle recognition. Classroom instruction includes Marine Corps history, general military subjects, and first aid.

The next 2 weeks of recruit training concentrates on basic marksmanship with the M-16A2 service rifle. Recruits spend 1 week learning marksmanship fundamentals in the classroom and dry firing (grass drills). The following week is spent on live fire and culminates with initial rifle qualification. After rifle qualification, the recruits spend a week performing either mess or maintenance duty. This supports the functioning of the basic training camp and gives the recruits a chance to work under the supervision of higher ranking recruits and not their drill instructors. This week also provides the opportunity to retrain recruits who experienced difficulty with either water survival or rifle qualification. They receive extra training and are given additional opportunities to qualify.

Recruits demonstrate mastery by successfully negotiating the obstacle and confidence course, completing a 10-mile march, and passing the PT test. Females run a slightly shorter distance and face different obstacles on the confidence course, which is designed to accommodate the height and upper body strength of women. To graduate, all recruits must pass the PT test and the combat water survival test, qualify with the rifle, pass the battalion commander’s inspection, and achieve mastery of the individual military subjects and combat basic tasks. If the recruit fails a graduation requirement, he or she will be recycled through training and given another opportunity to pass. The Crucible, a 48-hour field training exercise emphasizing teamwork and core values, is the climax of Marine Corps training.

Navy

Navy basic training addresses hazards unique to shipboard service. Training covers areas such as fundamental principles of amphibious operations, recognition of naval vessels, military seamanship, shipboard weapons, and damage control aboard ship. In addition, recruits receive classroom education in the medical areas of first aid, heat and cold injuries, health, pregnancy and parenting, and sexually transmitted disease. Instructors teach recruits to develop lifestyle habits that ensure health and to recognize the impact of health on quality of life and unit readiness.

All recruits are required to pass the Navy’s physical fitness test before graduating. When recruits arrive, they are allowed 1 week to adjust to the new environment before starting their physical fitness training. They will take two physical fitness tests while at basic training. The first is a slower paced test to allow for assessment of individual abilities and weaknesses; the second test is for the record. Recruits who fail the second test are held at basic training for further physical training. Recruits are also required to pass the swim test. In the swim test, a recruit wearing the fatigue uniform without boots jumps from an 8- to 15-foot platform into deep water and treads water for 2 minutes. This is followed by 2 minutes of drown proofing, in which the recruit must perform blouse flotation (ie, filling the fatigue shirt with air so it can be used as a life preserver), before finishing with a 25-meter swim. By the end of basic training, the recruit must also become at least a third class swimmer, which consists of entering the water from a height of at least 5 feet, swimming 50 yards using any stroke, and using the water survival prone float for at least 5 minutes. All recruits must meet the same standards with regard to academics, military drill, inspections, and the swim test. Physical fitness testing standards differ, however, for female and male recruits.

Since the Navy trains all recruits at one training site, they have a very well-prescribed PT program that is followed year round by all recruits. This consists of three modules: aerobic conditioning, muscle strength and endurance training, and low-intensity
training and exercise (LITE); this is in addition to the 20 to 25 miles per week a typical recruit will walk in routine movements between training sites. Each module contains exercise routines that are time-efficient, easy to perform, require no special equipment, and are modifiable to indoor, outdoor, and shipboard environments. General guidelines for the frequency and sequence of the modules throughout the Navy’s basic training cycle include (a) two to three sessions per week of aerobic training on nonconsecutive days, (b) two to three sessions per week of muscle strength and endurance training on non-consecutive days, (c) LITE training during the 1 to 2 days preceding the physical readiness tests, and (d) a maximum of five scheduled exercise sessions per week with warm-up and cooldown periods for each session.26

PSYCHOLOGICAL ASPECTS OF BASIC TRAINING

Stress management is an essential aspect of basic training. Some stress is necessary to prepare recruits to operate effectively in the high-anxiety conditions of combat. Leaders must ensure, however, that the only stress placed on recruits is that which results from the recruit’s performance of tasks. The stress created within a recruit by performance of a new or dangerous task is essential for motivation and learning. Stress should be positive and oriented toward attainable goals. Anxiety created by physical or verbal abuse is nonproductive and prohibited; stress should exist between the recruit and the task to be accomplished, not between the recruit and the instructors. Unwanted or unnecessary stress is harmful because it impairs performance and interferes with training. Stress management training for recruits identifies causes and effects of stress, teaches recruits to cope with stress, and provides information on ways to seek treatment for stress if needed.

For minor cases of anxiety and depression, recruits generally rely on the chaplains for counseling and guidance. Chaplains are especially crucial in counseling and responding to a recruit’s experiences of sexual harassment, as they are often the only safety net a recruit will have. When a recruit becomes unable to handle stress, there are usually manifestations in his or her performance that clearly indicate that something is wrong. At this point, the recruit is referred to the installation mental health clinic, where diagnostic tests may be administered to ascertain the scope and degree of the underlying problem before deciding on a course of action. In many cases, short-term treatment will teach the recruit sufficient coping skills to deal with the specific stressor, allowing the recruit to graduate on time. In other cases, further training will only exacerbate the stress reaction, so the recruit is recommended for discharge and removed from training until the administrative action is complete.

On occasion, the anxiety of basic training becomes too intense for certain recruits and suicide may become an issue. Commanders and instructors teach their recruits suicide prevention techniques. Recruits are told to notify their chain of command if they become aware of someone who is contemplating suicide. Instructors watch for signs from recruits who may be depressed, lonely, despondent, or excessively stressed. Commanders counsel recruits who are reported to have discussed or alluded to suicide. The commander must refer any recruits suspected of contemplating suicide to mental health personnel for evaluation and counseling. Since recruits are supervised 24 hours a day, actual suicide attempts are rare, and successful suicides are exceedingly rare. If a recruit is genuinely suicidal, psychological care will begin immediately. Once the recruit is safely beyond the crisis, he or she will be discharged from the service and referred to a Department of Veterans Affairs hospital for follow-up treatment.

GRADUATION CRITERIA

All services have similar graduation criteria. All require recruits to pass the physical fitness tests, albeit with slightly different criteria and testing methods for each service. All recruits must pass basic field training skills, which are unique to each service. All must qualify with the service rifle, and all must pass inspections of different scope for each service. If a recruit fails to master any graduation requirement, he or she must be recycled through a phase of training or undergo additional instruction to correct the deficiency. Every attempt is made to allow recruits to master the required skill and graduate. When attempts to bring deficient recruits to satisfactory levels of knowledge, conditioning, behavior, discipline, or skill have failed, separation of the recruit from the service may be necessary. Usually the services will allow no more than 3 weeks of remedial training to pass the required training modules. On the other end of the recruit spectrum, commanders are encouraged to merito-
riously promote recruits who have consistently demonstrated superior performance in the areas of physical fitness, marksmanship, leadership, motivation, and academics.

SUMMARY

Basic training builds the essential foundation for military servicemembers in their new careers. The skills and indoctrination to military service obtained during basic training can be crucial to the servicemember’s ability to defend his or her country. Essential aspects of basic training include teaching good health habits and avoidance of injury in an environment that is conducive to disease transmission and injury. Illness or injury distract a servicemember from the mission and reduce work performance. To minimize this source of potential mission failure, recruits need to be trained to regard their health as being of equal importance to that of a properly functioning weapon. Recruits must be taught to value protective health measures, devices, and services. Failure to comply with health regulations results in casualties, which the commander cannot afford. There is no time in a recruit’s career when sound health habits can be more successfully instilled than during basic training.

REFERENCES

3. AMSARA, Accession Medical Standards Analysis and Research Activity, Walter Reed Army Institute of Research, Silver Spring, MD.


A fancy, complicated training plan isn’t always a recipe for success. Here are the physiological elements every program needs to be effective. I thought I would take this opportunity to remind everyone to always consider the basic principles of training first and foremost when putting together your next training block. Training Principle 1: Overload. For any adaptation to take place, the human body is required to exert itself beyond the normal stress levels of training. Put simply, you need to ‘suffer’ in training in order to progress. This doesn’t mean every single session you need to be putting yourself in the ‘pain cave’ but you will need to check in regularly to ensure you are pushing yourself enough for the body to reset its cur The Global Wind Organisation Basic Safety Training Standard consists of five modules. To learn more about each module, click on the links below. Training providers, employers and participants can now choose between taking the combined course, or individual modules. The combined course will continue to require both WaH and MH records are uploaded into WINDA. Sea Survival. The aims of this BST Sea Survival course are, by theoretical and practical training to give the participants the ability to act safely and take the correct preventive actions in all aspects of offshore operations from shore to installation vessel or WTG and vice versa, both during normal operation and in an emergency in an offshore wind energy environment. A training environment outside the OR is designed to attain the attributes of ensuring a safe practice and optimum environment prior to undertaking surgery, usually through simulation techniques. One of the factors that underpin the success of a simulated training environment is the degree of realism where coaching is conducted. There is wide use of VR simulators in the training of basic laparoscopic tasks of core procedures, but VR simulators with good validity for advanced laparoscopic surgery do not currently exist. VR simulation still requires trainers to coach trainees on the simulated procedures and give constructive feedback. The basic-training work environment examined in the present study is characterized by low autonomy and unavoidable stressors. The focus of initial military training and socialization is tradition environments where the demands are unavoidable and the individual lacks the freedom to escape the demands. In the context of the basic-training environment examined in the present study, we expected that the use of denial as a coping strategy would be associated with negative outcomes.