CHAPTER 5

BODY STABILIZATION

The MFF parachutist must be able to exit an aircraft with his combat equipment, fall on a designated heading, and manually deploy his main parachute without losing stability. These body stabilization skills allow the parachutist to group in free-fall, cover small lateral distances with a rucksack, move off a lower parachutist's back in free-fall, and turn to keep the DZ or group leader in sight. The MFF parachutist maintains this skill through regular MFF jumps and periodic refresher training. This chapter addresses the body stabilization skills needed to make a night, tactical MFF jump with combat equipment from oxygen altitudes. Appendixes C and D provide recommendations for an MFF proficiency training program and suggested sustained airborne training.

Tabletop Body Stabilization Training

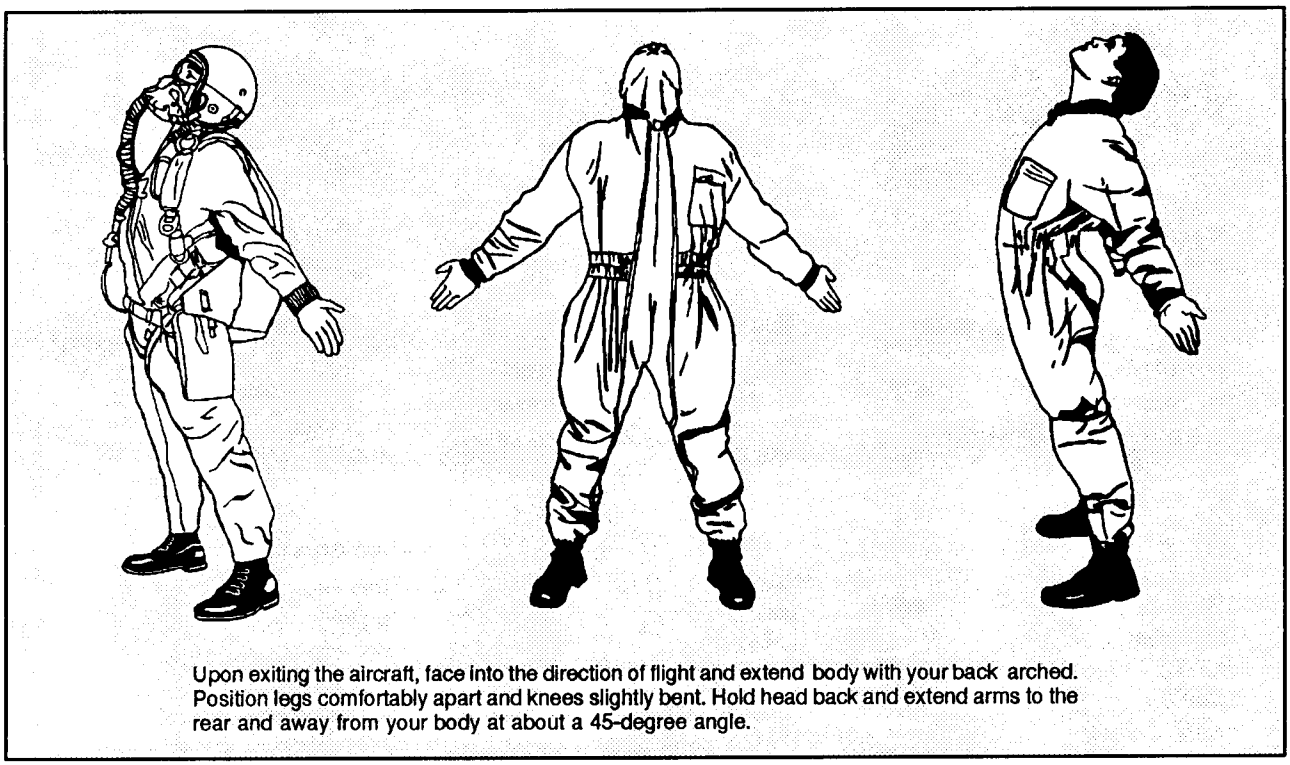
Any stable tabletop or flat surface can be used for body stabilization training. The parachutist lies on his stomach on the tabletop. At the command "go," he lifts his arms and legs from the tabletop, assumes the poised or diving exit position, then moves to the stable free-fall position (Figures 5-1 through 5-3). Controlled movement positions during free-fall include body turns, push turns, gliding, altimeter check, and main rip cord pull (Figures 5-4 through 5-8).

Recovery From Instability

Instability creates a hazard to the parachutist and to other parachutists in the air. Instability is the primary cause of MFF malfunctions. There are a variety of reasons for instability. Inmost cases it is caused by a parachutist who does not present a symmetrical body position to the relative wind, either on exit or in free-fall. A contributing factor to instability in free-fall is the inadvertent shift or release of combat equipment. A flat spinning or tumbling body motion characterizes instability. It is dangerous not only to the parachutist experiencing it but often to other parachutists in free-fall with him. It prevents tactical grouping.

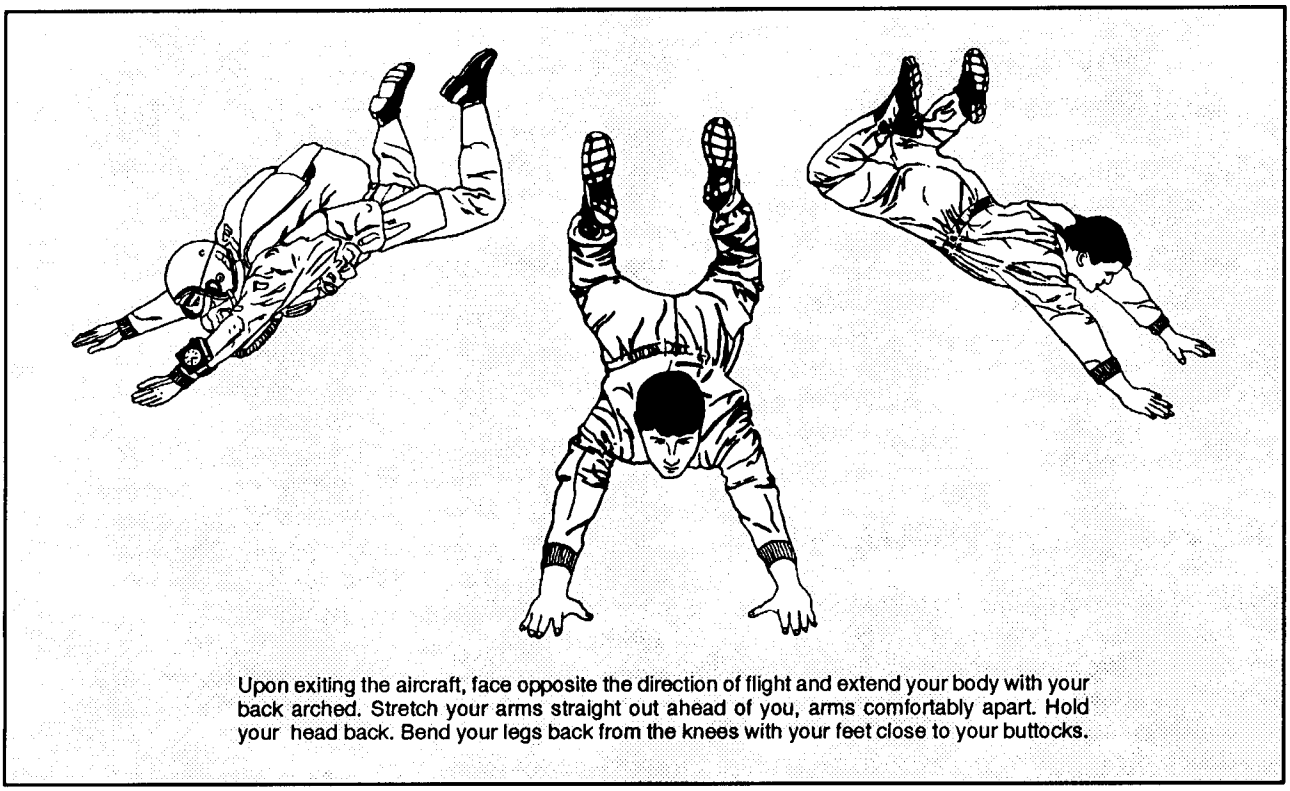
Recovery From a Flat (Horizontal) Spin

If the parachutist's is spinning or filling on his back, he must first return to a face to earth free-fall altitude by arching his body Depending upon the speed of his spin, sometimes this movement alone is enough to slow or stop a flat spin. If he is still spinning after facing the earth, he must counter the direction of the spin. He does this movement by looking in the opposite direction of the spin (for example, if spinning clockwise, he looks counterclockwise) and making a hard body turn in that direction. He holds this body position until the spin slows and stops. Depending on the amount of momentum he developed before he started countering the spin, he may have to hold this body position for several revolutions. Once the spin has stopped, he checks his body position, makes an altimeter check, and continues with the mission.



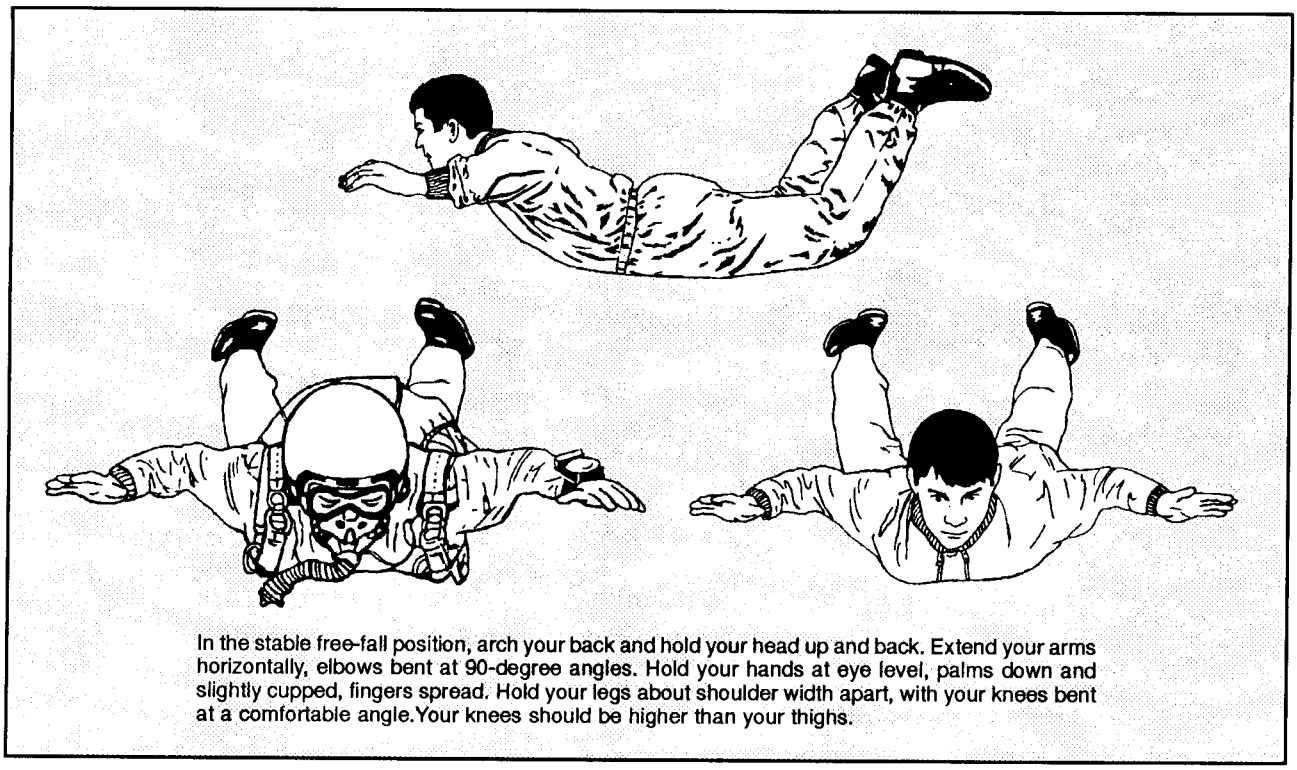
Upon exiting the aircraft, face into the direction of flight and extend body with your back arched. Position legs comfortably apart and knees slightly bent. Hold head back and extend arms to the rear and away from your body at about a 45-degree angle.

Figure 5-1. Poised exit position



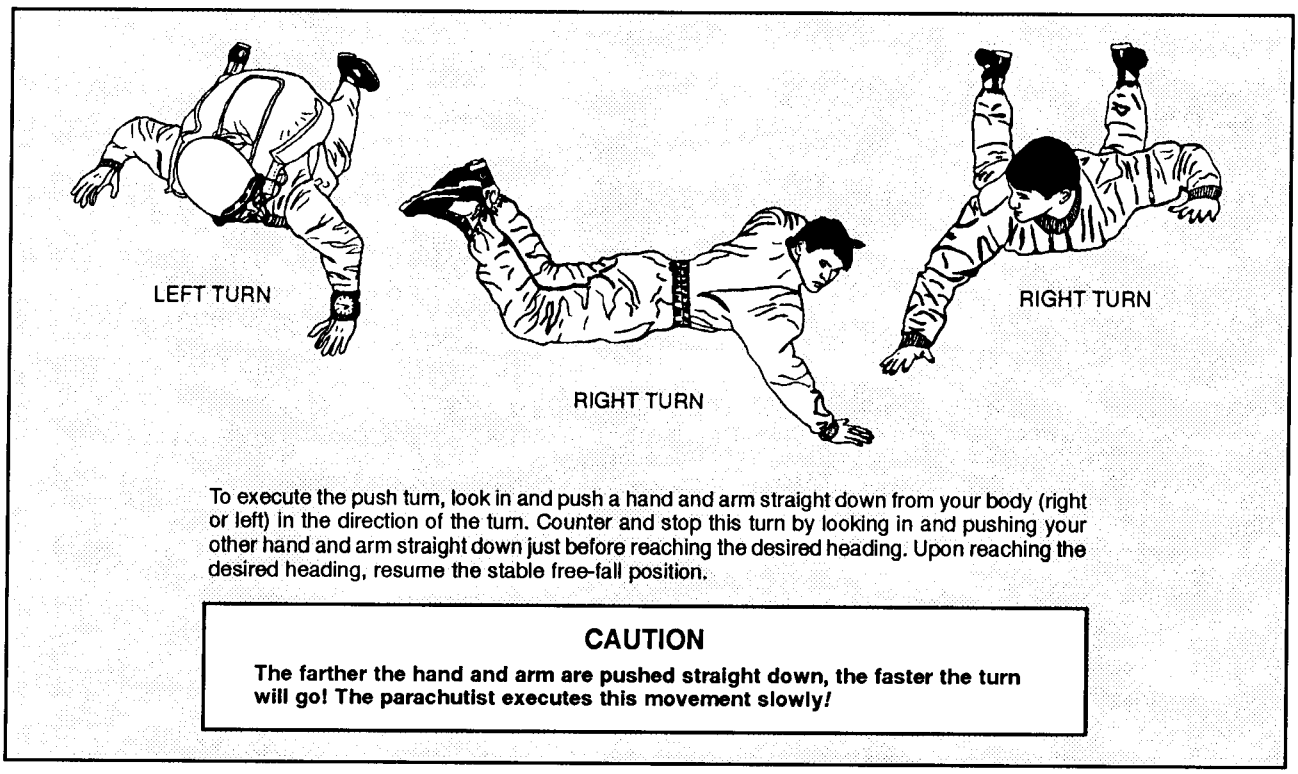
Upon exiting the aircraft, face opposite the direction of flight and extend your body with your back arched. Stretch your arms straight out ahead of you, arms comfortably apart. Hold your head back. Bend your legs back from the knees with your feet close to your buttocks.

Figure 5-2. Diving exit position.



In the stable free-fall position, arch your back and hold your head up and back. Extend your arms horizontally, elbows bent at 90-degree angles. Hold your hands at eye level, palms down and slightly cupped, fingers spread. Hold your legs about shoulder width apart, with your knees bent at a comfortable angle. Your knees should be higher than your thighs.

Figure 5-3. Stable free-fall position.

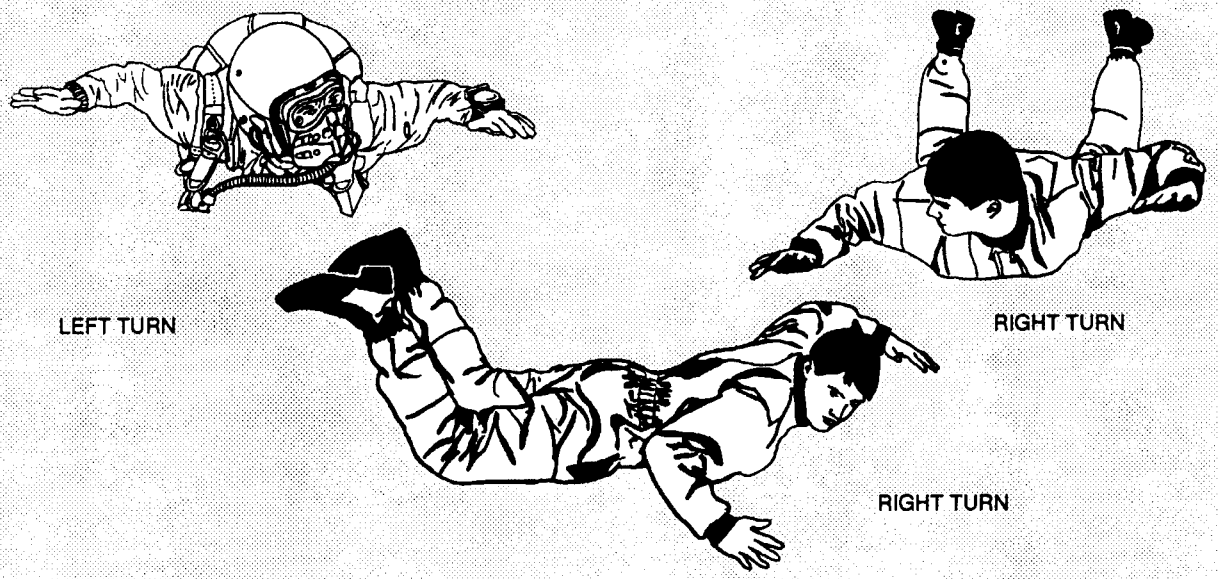


To execute the push turn, look in and push a hand and arm straight down from your body (right or left) in the direction of the turn. Counter and stop this turn by looking in and pushing your other hand and arm straight down just before reaching the desired heading. Upon reaching the desired heading, resume the stable free-fall position.

CAUTION

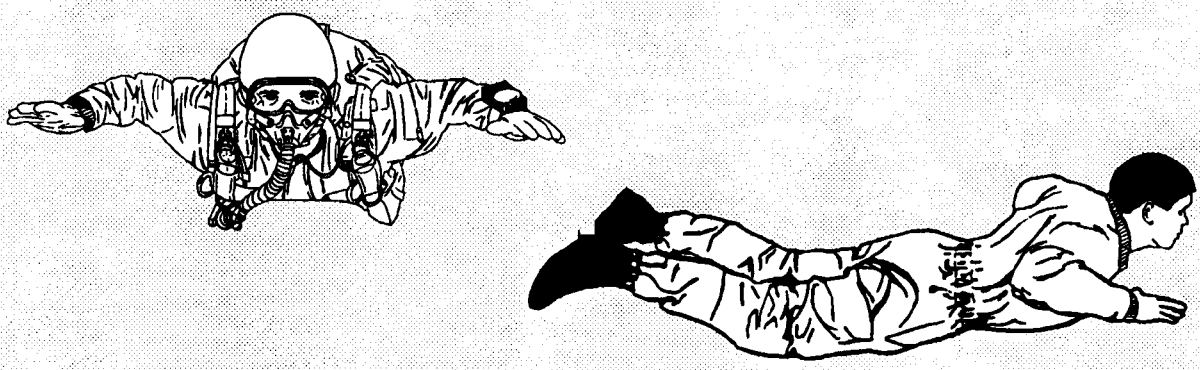
The farther the hand and arm are pushed straight down, the faster the turn will go! The parachutist executes this movement slowly!

Figure 5-4. Push turn.



To execute the body turn, look in and bend the trunk of your body in the desired direction. Counter and stop this turn by looking in and bending the trunk of your body in the opposite direction just before reaching the desired heading. Resume the stable free-fall position upon reaching the desired heading.

Figure 5-5. Body turn.



The glide is a controlled lateral movement. It allows you to maintain relative position with a designated group leader or bundle. To glide, bring your arms back with your elbows held near your sides and your forearms at about a 90-degree angle to your body. Rotate your shoulders up and forward to cup your upper body. Then straighten your legs from the knees. The straighter you hold your legs, the faster the glide will be. To stop the glide, return to the stable free-fall position.

CAUTION

Considerable forward momentum and speed will be acquired in a continuous glide relative to another parachutist. The parachutist returns to a neutral stable free-fall position from a glide before initiating a main rip cord pull sequence.

Figure 5-6. Gliding.

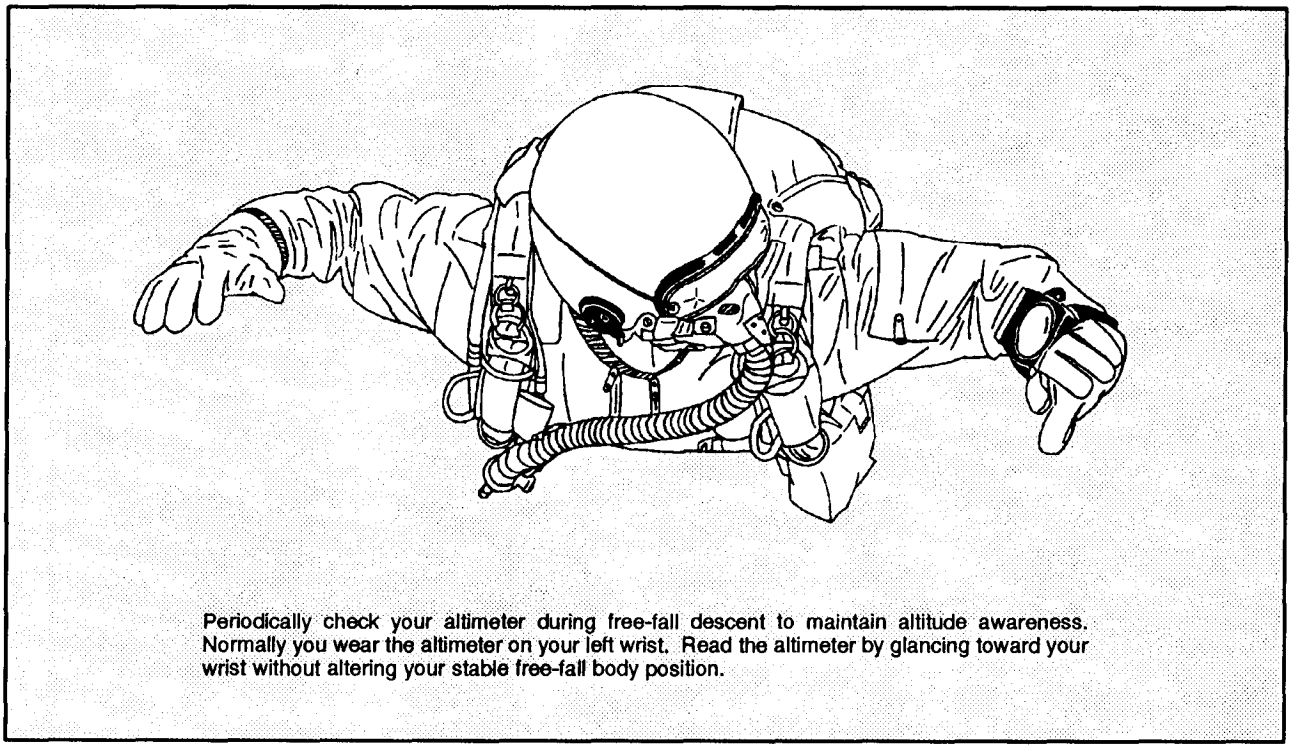


Figure 5-7. Altimeter check.

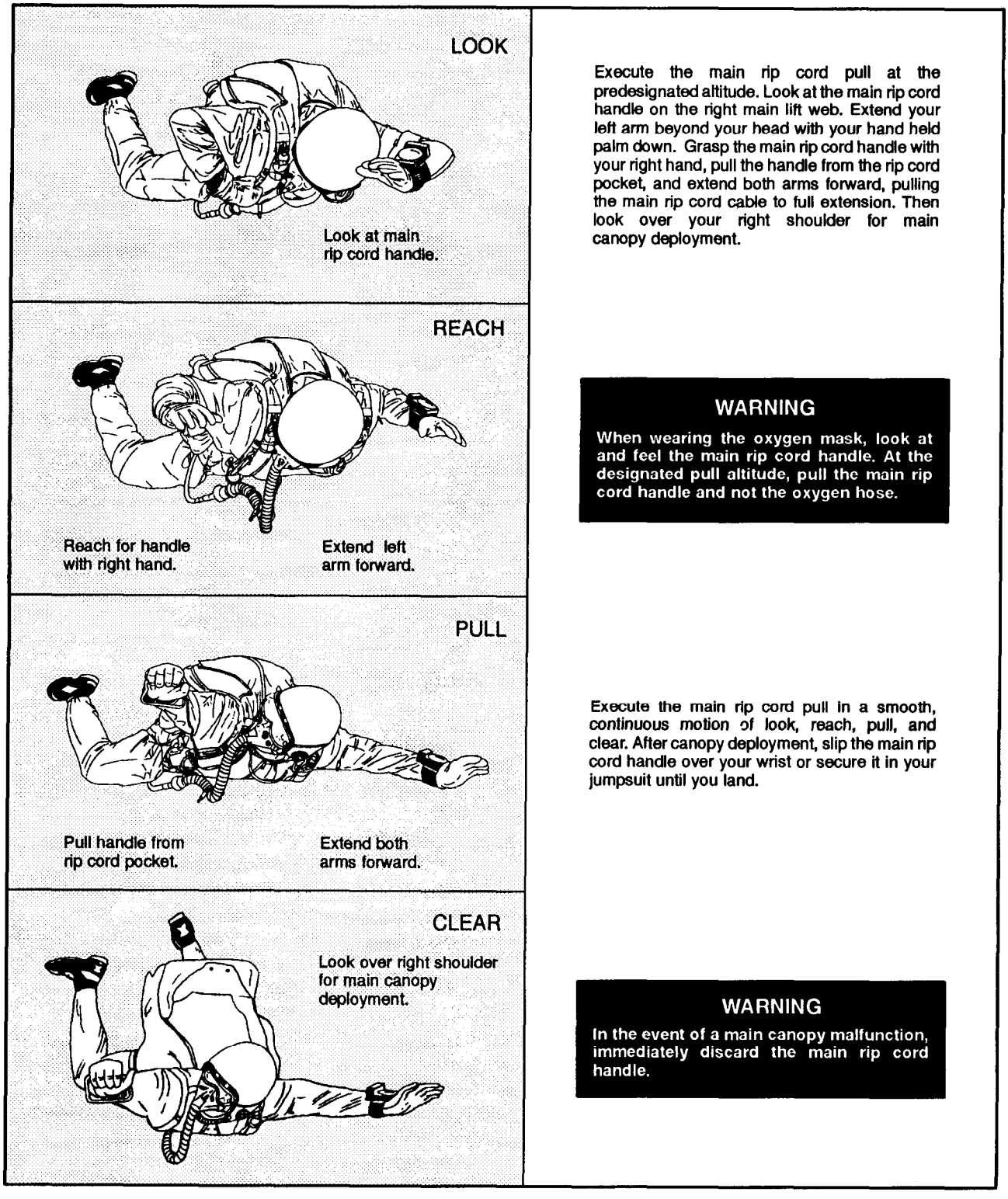
If a shift of the combat pack causes a flat spin, the parachutist may have to adjust his body position to obtain stability or maintain a heading. The severity of the shift (versus an inadvertent release) determines how much adjustment of the knees, the angle of the lower leg, hand and arm placement, or cocking of the hips he must make to counter the effect of a combat pack that is now not symmetrical or square to the relative wind.

Recovery From Tumbling

A bump during a group exit or breaking the arched body position normally causes tumbling. If tumbling, the parachutist assumes the hard arch body position until he faces the earth. Once he faces the earth, he relaxes the hard arch to a stable free-fall body position. How long it takes him to return to a face-to-earth position will vary with the severity of the tumble, his body area surface, and his combat equipment's configuration. Presenting a symmetrical body position to the relative wind on exit from the aircraft is the most significant factor in preventing tumbling.

Altitude Awareness

A parachutist who is unstable must remain altitude aware. The stress created by instability can cause a normal human phenomena of temporal (time) distortion. The resultant eflect varies from individual to individual. It can appear to be either a time compression or a slowing down of perceived time passage. He must not get so caught up in his attempts to recover stability that he loses altitude awareness and forgets to manually activate his parachute. He must never sacrifice the pull altitude for stability or the continued attempts to obtain stability before the pull. An unstable parachutist must remember that as he is falling, an area of low pressure is created above him. Any altimeter reading while in this low pressure area will not reflect the correct altitude AGL. An example is a parachutist falling back to earth who looks at his altimeter while holding it in front of his face. Due to the low pressure zone in which the altimeter is located, the parachutist will read a higher altitude than where he actually is in feet AGL. Remember, this pressure differential can cause the altimeter to be off as much as 1,000 feet.



Execute the main rip cord pull at the predesignated altitude. Look at the main rip cord handle on the right main lift web. Extend your left arm beyond your head with your hand held palm down. Grasp the main rip cord handle with your right hand, pull the handle from the rip cord pocket, and extend both arms forward, pulling the main rip cord cable to full extension. Then look over your right shoulder for main canopy deployment.

WARNING

When wearing the oxygen mask, look at and feel the main rip cord handle. At the designated pull altitude, pull the main rip cord handle and not the oxygen hose.

Execute the main rip cord pull in a smooth, continuous motion of look, reach, pull, and clear. After canopy deployment, slip the main rip cord handle over your wrist or secure it in your jumpsuit until you land.

WARNING

In the event of a main canopy malfunction, immediately discard the main rip cord handle.

Figure 5-8. Main rip cord pull.