Rusk, Howard A. MD
1945-51

SAVE

IN REPLY REFER TO:

Rusk

HEADQUARTERS, ARMY AIR FORCES
WASHINGTON

AFTAS-SO
11 April 1945

Mrs. Franklin D. Roosevelt
The White House
Washington, D. C.

My dear Mrs. Roosevelt:

Our new crutch walk manual has just come off the press and, thinking you would be interested in it, I am attaching a copy.

Sincerely yours,

Howard A. Rusk

HOWARD A. RUSK
Colonel, Medical Corps
Chief, Convalescent Training Division
Office of The Air Surgeon

1 Incl:
AF Manual No. 49, "LET'S WALK."

Air Forces Manual No. 49

Published for
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Institute for Crippled and Disabled, New York, N. Y.
by
HEADQUARTERS ARMY AIR FORCES
Office of the Assistant Chief of Air Staff, Training
Training Aids Division

Listen, men...

The object of this book is to help teach you to walk again.

We want every man to leave this hospital under his own power. And it can be done!

We make no exceptions, regardless of your injury.

Learning how to walk again will not be easy. This period in your life represents your greatest battle—but you can win this one, too, if you wish. In it, there will be no shell and flak, no boom and cannon, no guns. For this mission you must supply your own weapons: determination, patience, and a love of independence! Without these, the best medical aid in the world, which is available to you, will be of little value.

In other words, soldier, this fight will take guts, too.

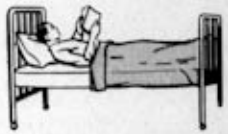
You who are without both your God-given legs can walk out of the hospital and take over your former job—or a better one. You can work and dance and play again. You can take your place among friends and neighbors and resume your pursuit of happiness. Yes, you can marry and raise a family. No longer need you be confined to a life in bed or wheel chair. You, too, can walk—if you will fight for what you want. What we state is simple truth backed up by records of many cases like yours.

The battle will not be easy, mind you. It will take grit and sweat. To win means you cannot surrender in the face of what may appear to be overwhelming odds. To win means visualizing a definite goal and then working towards that goal in a planned, orderly manner. No one but you yourself can deliver this victory to you. What we possess are knowledge and methods that have been tried and proved successful, and these are offered for you to take and use. The results of this one-man's war will depend on you. We say, "If you want to walk again, you can. We can show you how to do it—but you must do it."

The value you receive from these pages of illustrations and text depends upon how well you carry out instructions. Learn to do things the right way—learn to do first things first—and save yourself many days in the hospital.

Regardless of your past experiences, you now face the greatest challenge of your lifetime. You can win again—if you wish.

IT would be logical if you paused now and mumbled: "Sure I want to walk again. Of course I want to lead a normal life. But what do I need besides will power and desire? Surely there must be something else."



There are other things. You must keep your muscles as healthy and as strong as possible. If you're going to walk with crutches when you first get out of bed, it is necessary to train the muscles that will give you walking power. These are primarily the finger flexors, triceps, abdominals, and quadriceps.

IMPORTANT MUSCLE GROUPS

"Finger flexors" is merely a two-bit term for forearm muscles—important for grasping and holding the crutch hand grip.

Triceps—sometimes known as the "pushing muscles"—are in the back of the upper arm, running from shoulder to elbow. This pair of muscles is necessary to lift the body weight. Without strong triceps your arms will be quite useless.

Abdominals form a power unit in the midsection, power you need to gain proper posture, to maintain the body frame, and to prevent sagging of the pelvis and stomach wall.

Quadriceps form the "Big Four" muscle team in front of the thigh and are to the legs what triceps are to the arms.

EXERCISES

PREPARING THE TRICEPS

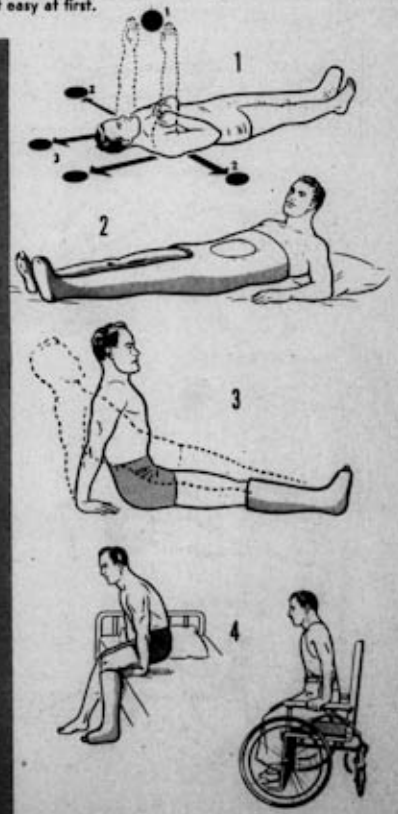
Many of you who have been in bed for a long time have exercised your biceps—the "pull-up" muscles—by using the overhead bar. Now you must condition the "push-up" muscles needed for handling crutches. Work on these while you still are in bed. Take it easy at first.

1 From a hands-on-chest position, extend arms forward, sideward, and upward. Try to touch the ceiling and the walls.

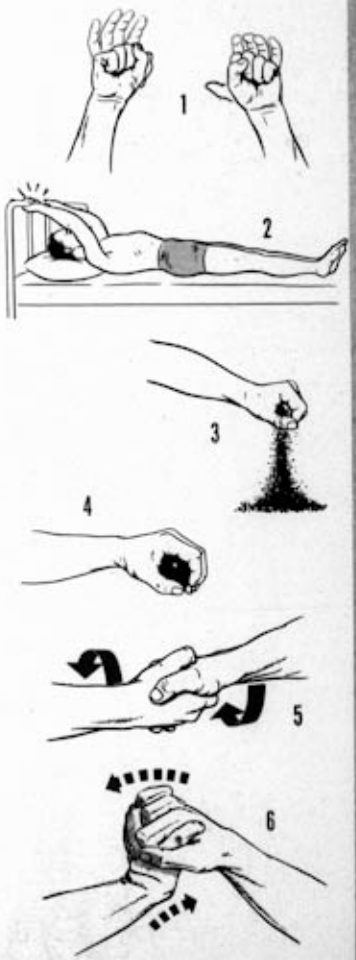
2 Though you may be in a full-body cast, push yourself up as far as possible. Tense upper arms.

3 If you are in a leg cast, push yourself into a sitting position. Tilt body backward slightly with palms beside and behind you. Stiffen arms. Relax. As strength returns, put a box or book under each hand to give you some altitude.

4 Exercise the triceps while sitting on side of bed or in wheel chair. Grasp mattress or chair arm firmly, stiffen arms, and lift body upward as far as possible. (Please the breeze up there?)



PREPARING THE FINGER FLEXORS



1 Spread fingers wide and practice tightening the fists.

2 Stretch out on your back. Raise arms up and grab top bed rail. Tighten fists and s-q-u-e-e-z-e. Relax. S-q-u-e-e-z-e.

3 A sand box made in the Occupational Therapy room is a handy gadget. Tightly grab a handful of "Miami Beach" and then let it filter through your fingers.

4 Create finger power by squeezing a tennis or hard rubber ball. It's an old prize fighter's trick and very helpful. Give each hand equal time.

5 Strengthen the forearm muscles by doing some mild hand wrestling with the fellow in the next bed. But don't get too strong and break his arm.

6 Here is more combat. Interlace fingers with the fellow next to you. Now try to straighten his fingers and bend back his wrist.

Seemingly of little significance but really very important is a set of strong hands, for when using crutches you literally "walk on your hands."

PREPARING THE QUADRICEPS

By now you know what to expect of your hands and arms, and how you must condition them. Next start working on the **QUADRICEPS,** the muscles that put the kick in the conga. It's a simple assignment.

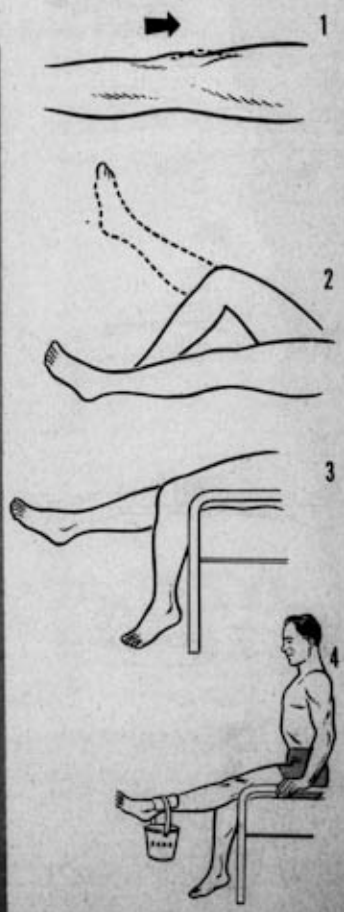
Here the leg is collapsing because of weak quadriceps making it difficult to walk.

1 While in lying position, tense thigh muscles of strongest leg. (Tighten 'em up!) Relax! Notice how knee cap moves? (Seems silly, doesn't it? But it isn't, really.) Repeat on your weaker pin.

2 After raising your knee, straighten leg as stiffly as possible. Hold it a minute before resuming original position.

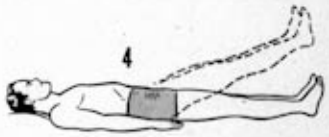
3 Sit on the side of your bed and raise the leg until it is straight out in front of you. Be certain the knee cap is tight. Relax. Bring leg down.

4 Another way to tone up the quadriceps: put some sand in a bucket, hang the bucket over your ankle, and lift. Add more sand each day.



PREPARING THE ABDOMINALS

It is the abdominal muscle group that helps to stiffen the body frame as steel girders support a building. No support, no building. So start back to work. We want you to get out of here.



1 If you are in a body cast, raise head and shoulders off pillow for at least 8 inches.

2 Assume the horizontal position. Set palms on thighs. As you slowly elevate your trunk, start "walking your fingers" towards your knees. Keep those legs stiff.

3 On your back again. Clasp hands behind head. Lift the torso off the sack about ten inches. **(Hey! Keep those legs down!)** Tomorrow it will be easier.

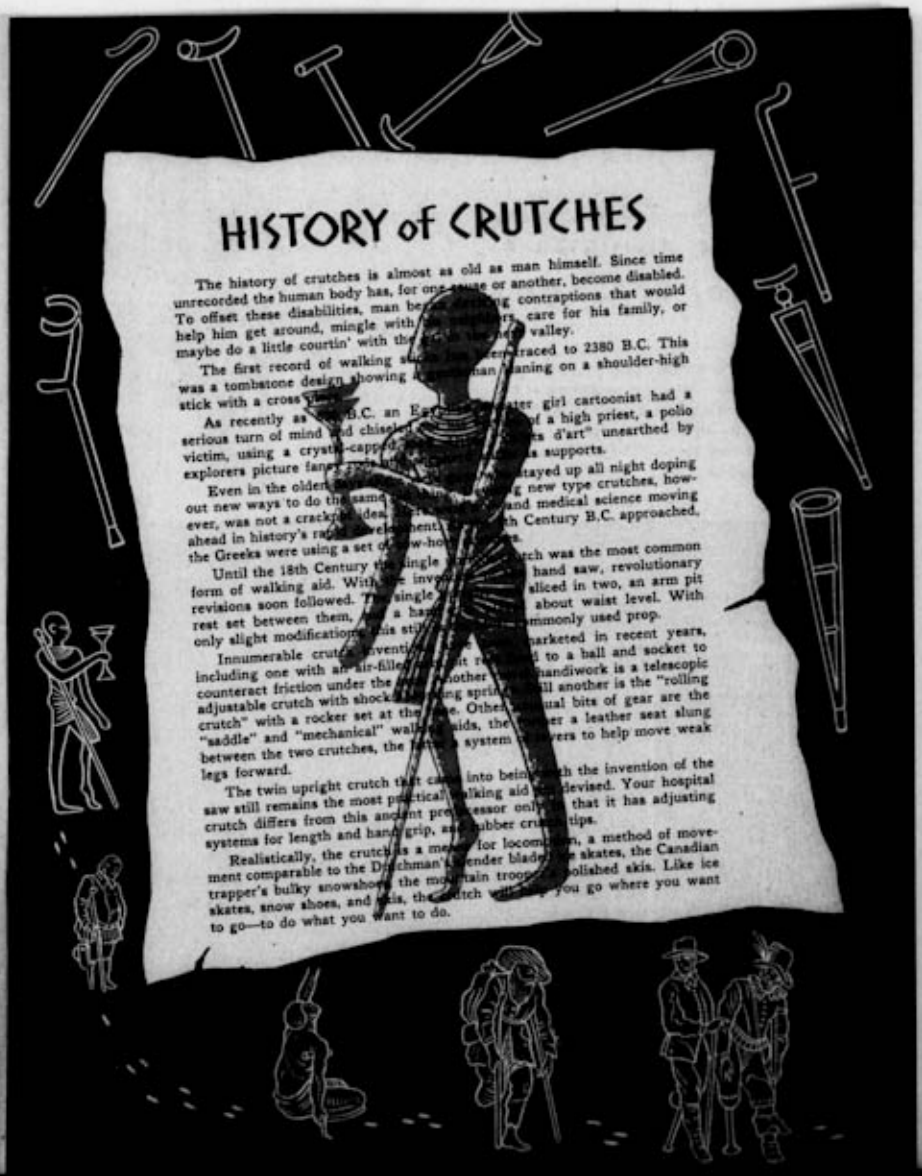
4 Bring both legs up straight and close together, lower back flat.

5 Turn torso to left and grasp left bed rail with right hand. Turn torso to the right and grasp right rail with left hand.

6 The next abdominal exercise has no artistic accompaniment. But you can do it, regardless. Just **hiccup.** That's right, **hiccup.** Contract your midsection—draw stomach in—and simulate the sound effects.

A hiccup (or hiccough), according to Webster, is a "spasmodic inspiratory movement, consisting of a sudden contraction of the diaphragm accompanied with closure of the glottis, the inrush of air against the closed glottis producing a peculiar sound." Add our artist says to tell Webster to illustrate that exercise himself.

Notice the bad posture caused by sagging of the abdominals.



HISTORY of CRUTCHES

The history of crutches is almost as old as man himself. Since time unrecorded the human body has, for one cause or another, become disabled. To offset these disabilities, man be[illegible] contraptions that would help him get around, mingle with [illegible] care for his family, or maybe do a little courtin' with the [illegible] valley.

The first record of walking s[illegible] traced to 2380 B.C. This was a tombstone design showing a [illegible] man leaning on a shoulder-high stick with a cross [illegible]

As recently as [illegible] B.C. an E[illegible] ter girl cartoonist had a serious turn of mind and chisel[illegible] of a high priest, a polio victim, using a crystal-capped [illegible] s d'art" unearthed by explorers picture fan[illegible] supports.

Even in the older [illegible] tayed up all night doping out new ways to do the same [illegible] g new type crutches, however, was not a crack[illegible] and medical science moving ahead in history's ra[illegible] h Century B.C. approached, the Greeks were using a set of [illegible]

Until the 18th Century the single [illegible] tch was the most common form of walking aid. With [illegible] hand saw, revolutionary revisions soon followed. The single [illegible] sliced in two, an arm pit rest set between them, [illegible] about waist level. With only slight modifications this st[illegible] mmonly used prop.

Innumerable crut[illegible] arketed in recent years, including one with an air-fille[illegible] to a ball and socket to counteract friction under the [illegible] handiwork is a telescopic adjustable crutch with shock [illegible] ll another is the "rolling crutch" with a rocker set at the [illegible] ual bits of gear are the "saddle" and "mechanical" walk[illegible] er a leather seat slung between the two crutches, the [illegible] vers to help move weak legs forward.

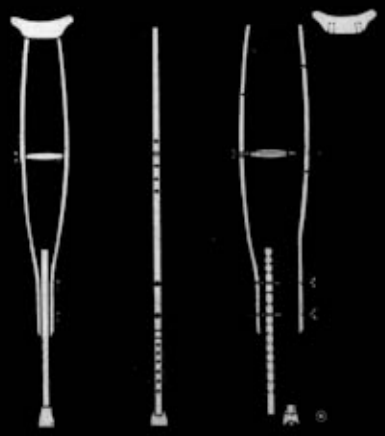
The twin upright crutch th[illegible] into bein[illegible] the invention of the saw still remains the most practical [illegible] lking aid [illegible] devised. Your hospital crutch differs from this ancient pre[illegible] essor only [illegible] that it has adjusting systems for length and hand grip, a[illegible] ubber cru[illegible] tips.

Realistically, the crutch is a me[illegible] for locomo[illegible], a method of movement comparable to the Dutchman's [illegible] ender blade[illegible] skates, the Canadian trapper's bulky snowshoe, the mo[illegible] tain troop[illegible] olished skis. Like ice skates, snow shoes, and skis, the [illegible] tch wi[illegible] you go where you want to go—to do what you want to do.

This is strictly G.I. — —

CRUTCH, ADJUSTABLE, WOOD, U. S. ARMY

The crutch is a vital means of locomotion, whether your disability is temporary or permanent. In reality, it is a "walking aid." Here you see it—strictly G. I.—in the manner you first met the Garand or '03, nomenclature and all.



BALANCE AND POSTURE

BALANCE, the first requisite of walking, is the ability to hold one's body in equilibrium primarily by muscle power. It's importance to you cannot be stressed too often.

You can lose balance ability and the muscular power necessary to maintain the body in the upright position when you are confined to bed for a long period or when part of the body having a direct bearing on the balance mechanism is lost.

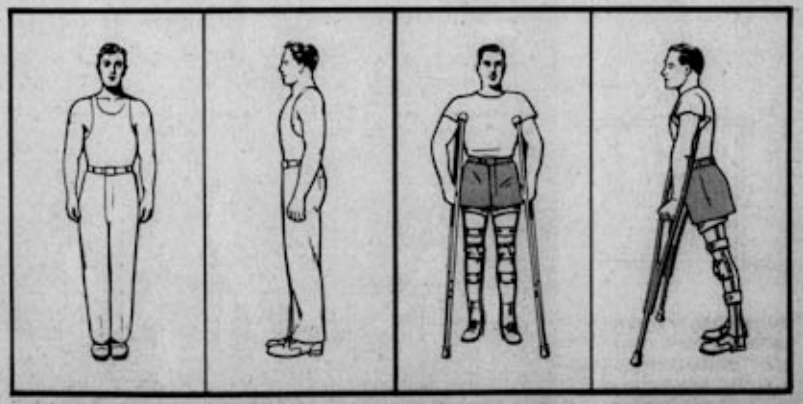
If your ability to balance has been lost through muscle weakness or lack of practice, you must practice **again and again.**

If part of your balance has been lost, you must develop this skill anew with crutches, canes, artificial limbs, or braces.

With balance mastered, you are ready to start walking.

GOOD POSTURE, your next consideration, is the proper alignment of the body as taught during basic training—shoulders back, head up, chin in, chest up, stomach and buttocks in—the tallest natural position a person can assume.

Proper posture will help you conserve energy and avoid fatigue. And, furthermore, you will look much better when you stand and walk correctly.



Head up . . . chin in . . . shoulders back . . . chest up . . . stomach and buttocks in. Stand straight and tall.

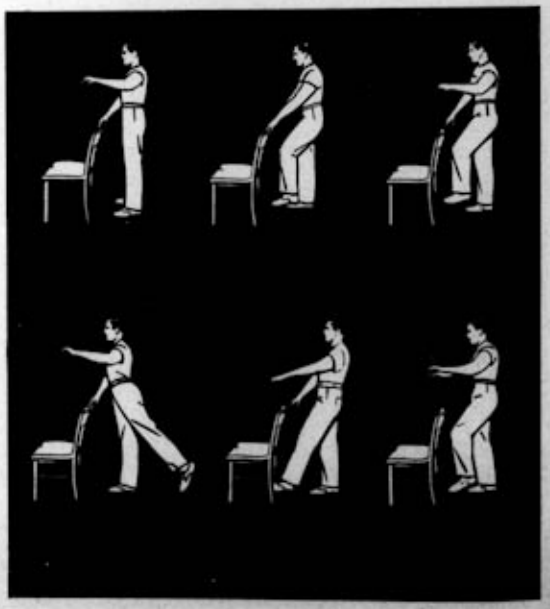
Head up . . . chin in . . . shoulders **down** . . . stomach and buttocks in . . . toes pointing straight ahead.

REESTABLISHING YOUR BALANCE

Hold onto bed and see how it feels to stand again. Fingertips only, with bed or chair as support.

The reestablishment of your balance is a high priority mission that must be accomplished successfully before you can begin walking again. Like all successful missions, this one is preceded by diligent preparation. Balance training starts as soon as you get out of bed. You commence at the bed side, continue with a chair as support, and finally graduate to the parallel bars in the gym.

Select an object or mark on the wall that is at eye level. Watch your posture. This exercise is a wonderful tonic for your balance mechanism.



H CRUTCHES

Body erect. Head up, buttocks in. Set crutches at angles shown in diagram. Support body weight on hands.

Before taking any steps, adjust crutches to proper length—usually two inches longer than the distance from arm pit to floor. Make measurement while in an erect position. Follow this by learning to stand correctly with your props.

CRUTCH WALKING DON'TS

Certain practices must be avoided for good crutch walking. Remember these and prevent accidents and ailments.

1

1 Don't carry your weight on arm pit rests—let the hands and hand grips take care of this. The arm pit rest is to balance the upper part of the crutch under your arm. Pressure under the arm pits can cause damage to nerves and may result in crutch paralysis, the most common of which is wrist drop. Don't hunch shoulders.

2

2 Don't overpad arm pit rests; there is no need for this since the rests should not carry your weight.

3

3 Don't have crutches too long. Correct length prevents too great a spreading of the props and preserves balance. Don't swing the crutches out—move 'em straight ahead.

4 Don't take too long a step. You may lose balance and fall.

5 If tips are worn exposing wood, get replacements quickly.

6 Don't turn your feet out. Keep them straight—and go forward. Don't use crutches or canes without rubber tips. You may topple over.

4

5

6

1

1 Don't walk with your game leg bent. Muscles become shortened when the leg is flexed for an unusually long time. Let the leg hang in a normal manner.

2

2 Using a built-up shoe you can hold the injured leg straight and off the floor. This will avoid toe stubbing and enable you to travel in a more natural manner.

4

3 The regular type of orthopedic cork boot may be provided to give you lift. If you feel ambitious, however, go down to the O. T. Room and build a rocker-bottom "wedgie" for yourself. Height of the heel—3 inches . . . 2½-inch ceiling for the toe.

3

4 Don't twist the cast leg out while walking.

5

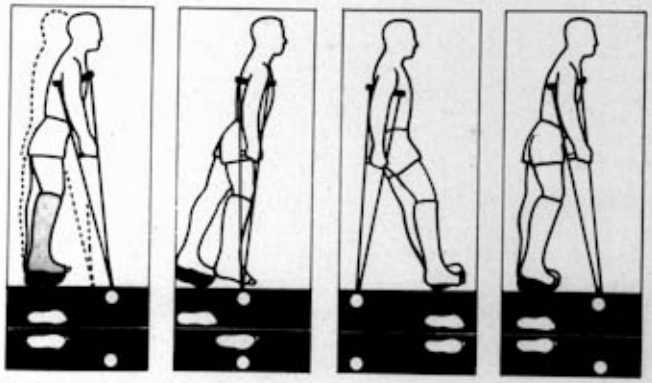
5 Don't set hand grips too low. Correct adjustment permits hands to carry your weight. Proper setting helps you gain proper leverage.

6

6 Don't neglect your equipment. Check wing bolts. They should be tight.

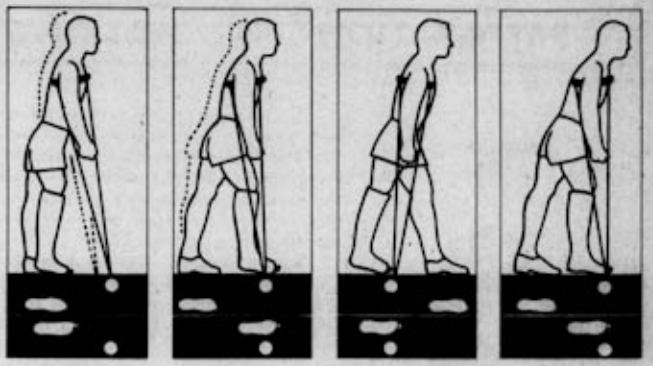
CRUTCH GAITS

The time has come for you to start getting around on your own. Here are the most common and useful crutch gaits. The Medical Officer will recommend those most suitable for you.

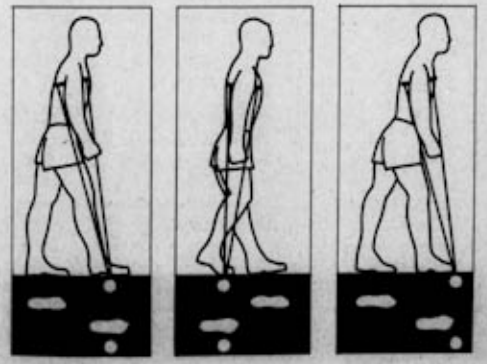


ONE-LEG SWING-THRU (2 point contact)—With weight mainly on good leg, support weight on hand grips. Swing body and both legs through crutches. (Don't swing too far.) As foot touches ground, bring crutches forward. Do these movements as one with a rhythmic follow-through. Do not hold game leg flexed behind you. Push down on hand grips and pull BACK.

TWO-LEG SWING-THRU (2 point contact)—All in one movement again. Crutch tips hit floor simultaneously. Shift weight forward and swing body through. As feet come to rest, shift weight forward . . . and move ahead once more.



The PRE-STROLL (2 point contact)—If medical Officer permits you to put injured foot to the ground for balance, move this leg forward, toes lining up with rubber tips. Swing weight and good leg through. Bring crutches forward.



The STROLL (3 point contact)—Place weak leg between props. Carry weight forward with most weight fixed on crutches. Step through with strong leg. Advance crutches and weak leg simultaneously.

PREPARATION FOR WALKING . . .

You have received the best medical care possible. You have been fitted with the best artificial limb for your needs. Your object now is to perfect your walking by learning how to manipulate the limb with a normal gait—to learn the everyday procedures necessary for work and play. Since you can't improve on nature, the obvious thing to do is to imitate the way you walk on your good leg.

In order for you to go up and down stairs, climb, drive a car, dance, sit down and arise with ease and the least conspicuousness, your artificial limb must move as part of your body. Once the muscles controlling the stump are strong, these activities will be easy.

A below-knee amputee with strong quadriceps should walk without any further problems, and without any noticeable gait.

These exercises are **"MUSTS"** to build up the muscles.

1

2

3

4

1 Before dressing in the morning, exercise your quadriceps. Without swinging the knee, slowly raise the stump to bed level. Tense the knee cap. Relax. Resume original position.

2 Toughen the stump via this novel gadget. (Make your own with a triangular block of wood, a spring, and a noose of leather or strong cloth.) Raise leg against the resisting spring. Slowly—up, down . . . up, down.

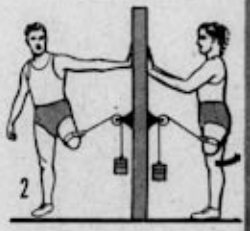
3 The buttocks and adductors must be tough, too. Bring stump close to good leg and lift. Keep good leg down. As you lift stump, tense the buttocks.

4 S-q-u-e-e-z-e pillow between legs. Paint pictures of Hitler and Tojo on each side and lick their teeth in.

WITH AN ARTIFICIAL LIMB

1

2



3

4

1 Orthopedic gym workouts for quadriceps should include table pulley routine.

2 The wall pulley is a fine conditioner for the buttocks. Note how the head should be brought back as the stump goes rearwards.

3 Turn back to pulley and bring stump forward and upward. This is for your hip flexors.

4 A little wrestling and tumbling are helpful.

5 Reach up and back with arms for stall bars and work with artificial leg.

6 As though ordinary G. I. sit-ups were not enough to contend with, here's a new "one-point" variation to create powerful abdominals. From a reclining position, hike up trunk and legs simultaneously. Balance on the buttocks—and reach for your shoelace.

7 Heads up! This is strictly from the chorus line. Turn the heel out . . . then the toes . . . and dance your way down the corridor. A few of you doing this together to a slow fox trot isn't a bad idea.

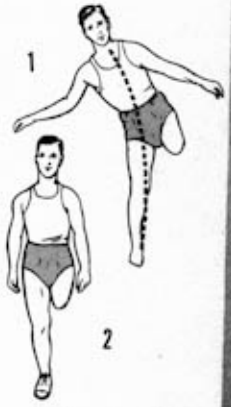
5

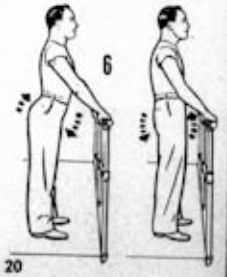
6

7

BALANCE AND POSTURE

The next essentials are BALANCE and POSTURE. Proper balance on the limb is the foundation for each step you will take. Balance has to be practiced until it becomes automatic. Learn to balance properly on **each** leg; don't neglect the good one. To balance properly means to have proper posture as well. Correct posture, which must be maintained, is the same as that described under crutch-walking—the G. I. way again. Walking in front of a mirror will be very helpful. A natural gait is the last essential. Above all, avoid bad walking habits. They are difficult to break once begun. It is so much easier to learn the **RIGHT** way **FIRST.**





1 Here is the wrong way to balance. You're off the beam.

2 This is the right way to balance. Body erect. Stump hangs straight.

3 Balance between bars. Extend leg backward and forward.

4 Balance on plank with good leg . . . then learn the same thing standing only on artificial limb.

5 In the ballet, this is called the Arabesque. Ballet or not, it's excellent advanced balance training.

6 The Pelvic Roll. Squeeze buttocks together, draw in abdominals, and roll pelvis under and forward—like the burlesque gal doing the bumps.

USING THE NEW LIMB

The basis for controlling an artificial limb is a healthy, strong stump. It is this power unit that permits you to lock the knee and avoid "knee-shooting"—and "knee-shooting" means falling on your face. If you goofed-off on the previous stump exercises, now is the time to make amends. Come on, men, let's walk.

WRONG **RIGHT**

1 This is the abduction walk—a rolling gait—and it's wrong. Abduction is a tough habit to overcome, too. Don't raise hip and shoulder for this swings your leg out. Additional exercising of the adductors will help prevent abduction.

2 This is correct. This is normal. The leg does not swing out. It moves straight ahead. Hips and shoulders are level. Don't rely too much on canes. You don't need them.

3 Going up stairs, place your good leg on the first step. Follow up with the artificial limb. Continue with good leg to the second step.

4 Going down stairs, reverse the procedure. Place artificial limb on lower step. Bring body weight forward to keep limb extended. Move good leg down.

HINTS

Sitting down and arising from a chair are special techniques. Do not choose a low chair—it's tough to get up from and accentuates your artificial limb. One too high will cause your limb to hang unnaturally. If a chair of proper height is not available, sit forward so the new foot rests on the floor.

1 When approaching a chair try to avoid "shuffling" from one foot to the other. Time your approach so the good leg is nearest the chair. A RIGHT amputee pivots to the RIGHT. LEFT amputee pivots to the LEFT.

Dark shoe in diagram represents the artificial limb.

2 Arising from a chair without noticeable effort can be done easily. If the chair can be moved, move it out from under you as you rise to stand. If the chair cannot be moved, plant your feet evenly, press down with your hand on artificial limb socket—and stand

3 Practice walking on rough terrain. If you react quickly, you should not fall. When elevators do not stop level or thresholds are too high, learn to step out and over with good leg first. If you feel yourself falling, take a quick, short hop with your good leg. Practicing this hop will prove helpful.

RECREATION

Many forms of physical recreation also will serve to build up the several muscle groups that make for good balance, good posture . . . and good walking.

1 Rope climbing . . . develops the adductors.

2 Golf . . . sharpens the balance mechanisms. But take care—knee shooting can occur at the end of your swing.

3 Walking the Plank . . . smoothes off some rough edges in your balance and posture pictures.

4 Hop Scotch . . . for the good leg. Another balance primer.

5 Throwing Darts . . . adds further knowledge to knee-shooting control.

6 Musical Chairs . . . tones up your reaction to everyday things you must do in a different way than before. Like getting up from chairs quickly . . . and doing them before the other guy.

BILATERAL AMPUTEE

With the bilateral amputee—the man who must use two artificial limbs—the problems of balance and posture are more difficult than for the single amputee.

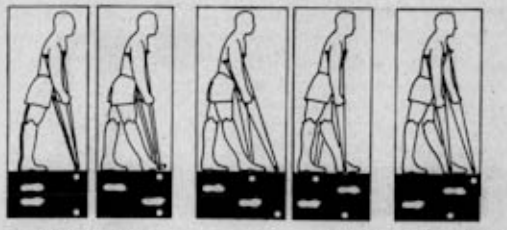
1 Using the bed as support, learn to stand correctly—head up in a dignified manner, buttocks rolled under. Frequent practise means easier and better walking.

2 Acquire posture and balance by standing on one limb while lifting the other slightly.

3 Parallel bars and mirror form a top-notch device. Hold on to bars—but don't lean on them. Stand erect. Roll those buttocks under. Head up, mister, and watch yourself in the glass. Shift weight over right limb—and step out with the left leg. As the left leg comes down, thrust the stump back in the socket and "dig" the heel into the floor. Shift weight over left side and step out with the right leg. Learning to thrust the stump back is invaluable technique that will prevent knee-shooting.

4 The double amputee's tendency is to keep his hips way back and chest out, a tendency to be prevented.

CRUTCH GAITS

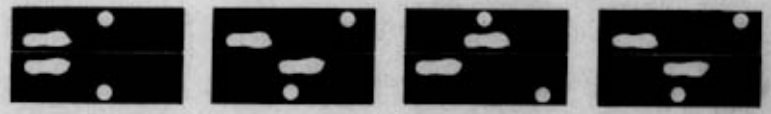


PRIMARY WALK

Your first crutch gait is the PRIMARY WALK (3 point contact) . . . Bring weight to left leg and left crutch as you step out with right foot. Move right crutch ahead of right foot and shift weight over right leg. Step out with left limb. Move left crutch ahead of left foot. Repeat.

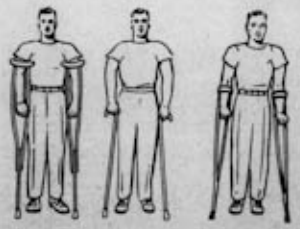
PACE WALK

Next is the PACE WALK (2 point contact) . . . Right leg and right crutch move out together. Shift weight to right. Continue with left leg and left crutch moving simultaneously. Repeat.



ALTERNATE CRUTCH WALK

The ALTERNATE CRUTCH WALK seems tricky at first but it becomes simple and smooth after practice. Advance **left crutch** and **right leg** together. Shift weight. Follow through with **right crutch** and **left leg.** Repeat.



Become proficient with crutches and soon you may be able to discard them for canes. The CRUTCH-CANE WALK will help this come about. Set crutches outside arms with arm pit rests against shoulders. Put hands through uprights to grasp hand grips. From this position, practice the foregoing gaits.

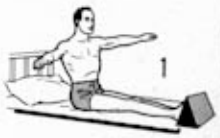
Short crutches may be prescribed before you graduate to canes. Topped by a ring through which the hand is slipped, the short crutch is about three-fifths the size of a regular staff.

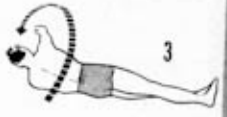
PARALYSIS

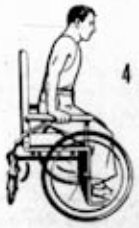
Caused by Spinal Cord Injuries

If you have paralysis caused by injury to the spinal cord, the chances are very good that you can walk again. It will be a rough job learning, no doubt about it. But it can be done—if you provide the fortitude.

Spinal injuries between the upper and lower extremities usually mean walking with crutches and braces. The big factors in such cases are strong arms and shoulders, so concentrate on these items by doing the following exercises. You will work off all excess fat at the same time.







1 With fracture board under mattress, learn to balance yourself in a sitting position.

2 Press hands on diaphragm and give out with some noise that sounds like "HUH, HUH".

3 The Medical Officer approving, roll from your back onto your belly. Develop power for this move from your arms and shoulders. Do this on gym mat, too.

4 In the wheel chair, lift body off seat by stiffening arms.

5 Move over to the horizontal bar in the doorway and learn to pull up.

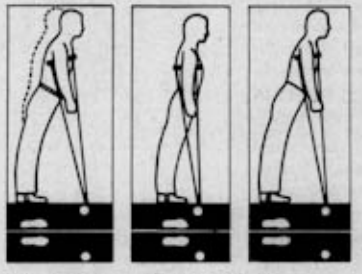
6 Correct tripod stance between bars.

7 Push yourself up between bars and rock your legs.

8 Shift weight, but keep the body straight.

CRUTCH GAITS

With the problem of staying up with an even rudder overcome, it is time for you to learn to walk. There are three movements, all started from a tripod stance, the Medical Officer may prescribe for you: The Shuffle, The Swing-Thru and the Primary Walk.



THE SHUFFLE (4 point contact)

With crutches slightly forward, sweep legs to crutch line. Shift weight over crutches, advance crutches, sweep legs forward.

THE SWING-THRU (2 point contact)

Try to perfect this so it evolves into a single, rhythmic movement. Crutch tips hit floor simultaneously. Shift weight forward over crutches. Swing body through. As feet come to rest, shift weight forward—bring up crutches, and move on. (Be careful not to swing too far forward or balance will be lost.)

NOW is as good a time as any to remind you about one of the more important points in crutch walking technique: press down on hand grips, and at the same time pull back on the grips as the body weight moves forward.

THE PRIMARY WALK (3 point contact)

Press down on right handle, putting weight over left leg and crutch. Right leg forward. Right crutch forward. Press down on left handle. Bring weight to right side. Move left leg and crutch forward to come on line with right prop and limb. Watch your posture. Stand erect. Head up.

CRUTCH WALKING EXERCISES

You should be quite a master with the polished stems by this time. Your muscles have been reconditioned and tuned for duty. The basic elements of crutch-walking have been divulged, studied and practiced. Soon you will be ready to leave.

But before you depart, become expert in a few tricks of the trade—a few fancy steps, so to speak, that will further help you go where you want to go to do what you want to do.

1

3

6

1 With back to wall, bring both crutches forward . . . then back.

2 Stay against wall. Left crutch to the left . . . back to original position. Right prop to the right . . . back.

3 Leg swinging between crutches.

4 The Side Swing will get you down narrow church or movie aisles. Shift crutches and weight to right. Steady yourself. Push down on hand grips. Lift feet off ground and swing legs towards right crutch. To move left, reverse procedure.

5 Wanna make a tight turn like a Piper Cub? Use the Swivel Hop. From tripod stance move crutches simultaneously in direction of turn, keeping tips equidistant. Push down on hand grips, stiffen arms, lift body, and make like a ball turret. Swing body around. Lift crutches . . . push down . . . stiffen arms . . . lift body . . . swing.

6 From tripod position, swing crutches back . . . then forward.

7 The One-Crutch Stance: lean body up to left crutch, fingers set snugly against hip joint. Bear down on left hand grip and—presto!—the right arm and hand are free to turn the knob, lock the door . . . or tip your hat to the pretty blonde.

2

4

5

7

AND TRICKS OF THE TRADE

1

2

3

5

4

1 One of the easiest ways to get on a curb: turn your back to the curb and swing one leg up on it. Press down on both crutches. Swing up the other leg. Bring up one crutch at a time. Join the other pedestrians.

2 To get down from a curb, set the crutches off the sidewalk, bring one leg down, then the other—and start across the street.

3 There's a definite way your buddy can help you onto crutches. With his legs outside yours, his arms through the prop frames, he holds you under the armpits. You take hold of his shoulders. He moves back two steps bringing you upright, and you take over the crutches to assume a tripod position.

4 To sit down—turn, grasp the chair arm, place one crutch against side of chair . . . regrip other crutch, and slowly let yourself into chair.

5 There is a single skill involved in leaving a chair, and here it is for you to put in motion: lock braces and do a quarter turn in your seat. Grasp left chair arm with right hand. With left palm flat on seat, push up. As body rises . . .

. . . turn to face the chair. Straighten up. Take one crutch . . .

. . . get it into position. Get the other one—and take off.

YOUR OWN RECORD

NAME _____ RANK _____ ASN _____

CAUSE OF DISABILITY _____ DATE _____ PLACE _____

HOSPITALIZATION

Name and Location of Hospital: _____

_____

Date Admitted _____ Date Discharged _____

Name and Location of Hospital: _____

_____

Date Admitted _____ Date Discharged _____

Name and Location of Convalescent Center: _____

Date Admitted _____ Date Discharged _____

DISABILITY WHEN ADMITTED TO CONVALESCENT CENTER

_____

PROGRESS RECORD

Received prosthesis (or braces) on _____

First stood on crutches _____ ; on artificial limb(s) _____

_____

ACHIEVEMENTS

BALANCING

List weekly progress of balancing on weak or artificial leg.

Date	Minutes	Seconds

SPEED WALKING

How long does it take you to travel 40 feet? List the score each week.

Date	Time

ENDURANCE WALKING

How far can you walk without stopping? Write it down.

Date	Steps	Yards

SPECIAL EVENTS

When did you first . . .

Get in and out of chairs? _____

Walk up and down stairs? _____

Open and close doors? _____

Go swimming? _____

Play golf? _____

Drive a car? _____

Dance? _____

In Conclusion . . .

This ends "Let's Walk!" Army Air Forces Manual No. 47, prepared after many long, tedious hours of work by the many persons involved. Of course, all admit this has been a minor effort compared to the one you must make to walk again.

"Let's Walk!" really is an illustrated statement of strategy and tactics that have won innumerable hospital campaigns. The power, the boundless confidence prevails that you can gain much by taking advantage of what is contained between these covers. This confidence is based on the opinion that you are ready to work—even fight—for what you want. But the lessons of medical and therapeutic experiences set down will be valueless without your toil, without your determination, without your patience—and courage.

You **can** win.

You **will** win—because our kind of people rattle for nothing less than victory.

Let's Walk!