



**General
Physiotherapy**



GK-3

Gen 3.1

GENERAL PHYSIOTHERAPY II LLC

WWW.G-5.COM | SALES@G-5.COM | 800-237-1832

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Opening a box of relief

Each GK-3 is shipped complete, in one carton. This carton contains the GK-3 Massage Machine; a low center of gravity rolling stand; an applicator package; and a 10ft (3m) hospital grade power cord.

Your GK-3 was carefully inspected before being shipped in its specially fitted carton. When you unpack your unit, inspect it carefully for any shipping damage. Report damage immediately to: (1) the local office of the shipping company that delivered your unit, and; (2) to the St. Louis office of GENERAL PHYSIOTHERAPY II LLC, and; (3) to the local distributor from whom you may have ordered your machine.

Keep the damaged unit and its carton together, so that they can be examined by the shipping company that physically delivered your damaged goods. By law we cannot file a damage claim for you: ICC regulations require that the receiving party must file a damage claim, and that the damaged merchandise be inspected at your premises. Do not return the unit until your local shipping company has completed its inspection. Once assembled, if the unit does not operate, please file a freight claim, even if there is no visible sign of damage.





Scan QR Code for Stand Assembly
Instructions or type in <https://bit.ly/3M8jvY9>



Caster Base
ASP-0003



Caster Wheels, 5pk
ASP-0002



Adjustable
Stand Pole
ASP-0001



Stand Machine
Mounting Plate
ASM-0006



4 – M6 x 10mm
Socket Head Cap Screw



Stand Guide Handle
ASB-0003



Stand Tray
ASB-0001



Tray Mounting
Bracket
ASB-0002



M6 Flat Washer
M6 x 60mm
Socket Head Cap
M6 Nut



M14 x 24mm OD
Flat Washer



M14 x 18mm OD
Lock Washer



M14 x 30mm Socket
Head Cap Screw



Tensioning Knob

14mm
Wrench



12 Allen Key



5 Allen Key



4 Allen Key



Speed Controller Operations



Operating Instructions:



Press Control Knob for On/Off



Rotate Control Knob Clockwise to Increase CPS



Rotate Control Knob Counter-Clockwise to Decrease CPS



Press & Hold Control Knob to Adjust Default Settings
(Not Recommended)

Speed Controller Specifications

Working Voltage	DC9V~60V
Rated current	12-20A
Max Power	500W
Operating Freq	1-99KHZ
Operating Cycle	0-100%

Adjust Default Settings (Not Recommended):

- Default Settings:
 - Setting Parameter: OFF (Machine is OFF after being plugged in)
 - Lower Limit: L20 (Do not set lower than 20)
 - Upper Limit: H60
 - Frequency: F20
- Set Speed Controller to OFF - no green light visible but display numbers lit
- Press & Hold Control knob until display shows ON or OFF
- Short press knob to cycle through Setting Parameter, Lower Limit, Upper Limit, and Frequency
- Adjust settings by rotating control knob
- Press & Hold Control knob to return to regular operation once done adjusting settings

Recommendations & Maintenance

1. **Maintain & Repair Your Machine:** With proper care, your GK-3 unit will give many years of trouble-free service. However, if your unit develops mechanical problems, immediately notify us at Sales@G-5.com.
2. **Clean your GK-3:** Use a mild solution of soap and luke-warm water to clean the exterior of your machine. Use of alcohol or strong cleaning fluids may discolor the plastic housing.
3. **Maintain Positive Control of the GK-3 Head Assembly:** Hold the handle of the head assembly lightly as you would a pencil, namely, between the thumb and fingers, with your fingers spread over and on the beveled surface of the head assembly. This provides you with maximum control and minimum fatigue. Do not grasp or hold the rubber cuff. This will cause very rapid wear and will quickly destroy the rubber cuff itself.

The weight of the head assembly, resting on the client who is prone, often is enough to produce sufficient pressure for satisfactory results.

Use both hands. Maintaining contact with your client is essential for all procedures. When applying applicator head, always use both hands. Hold the head assembly in one hand and use the other one to feel out the body area you are treating, to guide the applicator, and to feel out bony protuberances, which should be avoided.

Moving the head assembly. Move the applicator very slowly. Fast, jerky and random movements upset the client. Always work up the arms or legs in the direction of venous flow.

4. **Warranty Registration:** Your machine's warranty is automatically registered at the time of shipment.

Recommendations & Maintenance

Do Not

1. **Do not operate the GK-3 below 20% Power:** Your GK-3 Gen 3.1's lowest operating setting is 20% which equates to 15 Cycles per Second. Below 20% power, the head assembly will not oscillate and the motor may be damaged if left on for too long. Your device comes pre-set from the factory to prevent operating below 20%. If you find you are able to operate your machine below 20%, follow the instructions in the Speed Control Operations section of this booklet to reset your speed controller to factory settings.
2. **Do not let the GK-3 run free:** Your GK-3 is designed to work against pressure. Therefore, do not turn on your machine until you are ready to use it on your client; otherwise, you will increase wear and tear on the head assembly
3. **Do not kink the cable or bend it sharply**
4. **Do not lubricate or oil your GK-3:** All bearings are sealed and do not require any additional lubrication.
5. **Do not allow massage oils to collect on your GK-3:** Overtime massage oils will weaken the plastic in your device and increase the likelihood of cracking

Worth Noting

1. **Caution:** Be certain that the input power from the wall socket matches the operating power specified for your GK-3. Your GK-3 is compatible with most country's electrical grids and is designed to operate between 110v-220v AC and 50-60Hz input power.

What is it good for

Indications

There are many indications for the adjunctive use of Massage and Percussion Machines, but their use should be prescribed by a qualified practitioner.

Indications Include:

- Relief of muscle pains & spasms in muscle contusions, sprains, and strains
- Provide passive exercise to paralyzed muscles
- Aid in mobilizing edema fluids in swollen extremities
- Warm muscles & increases local circulation
- Aid in the prevention of muscle fatigue & stiffness in heavily exercised muscles
- Aids in breaking down adhesions between superficial & deep tissues, as in scars
- Loosens bronchial secretions during postural drainage procedures
- Aid in maintaining joint mobility & reduction of periscapular adhesions & joint edema
- Aid in maintaining muscle tone & circulation in hemiplegics

Contra-Indications

Normal precautions should be observed in the use of your GK-3, because of its deep penetration. Excessive pressure & prolonged application should be avoided.

The GK-3 should be used with special care over sensitive areas, such as the head, face, the cervical spine, & internal organs. Areas around the eyes should be avoided completely.

Contra-Indications Include:

- Acute inflammation
- Hemorrhaging areas
- Skin lesions
- Malignant lesions
- During pregnancy or intention to get pregnant
- Thrombophlebitis
- Lymphangitis
- Poor heart conditions
- Usage of a Pacemaker
- Varicose veins
- On individuals with an intolerance to vibrations

Introducing your New GK-3 Gen 3.1

Mechanical vibration has been widely used by Physiotherapists for many years. Mechanical vibrations are applied to the body, and in turn are transmitted through and into the body.

The GK-3 is easy to use and is easy to train others to use. Many of its features have been gained from G5's 40+ years of experience in manufacturing professional massage systems.

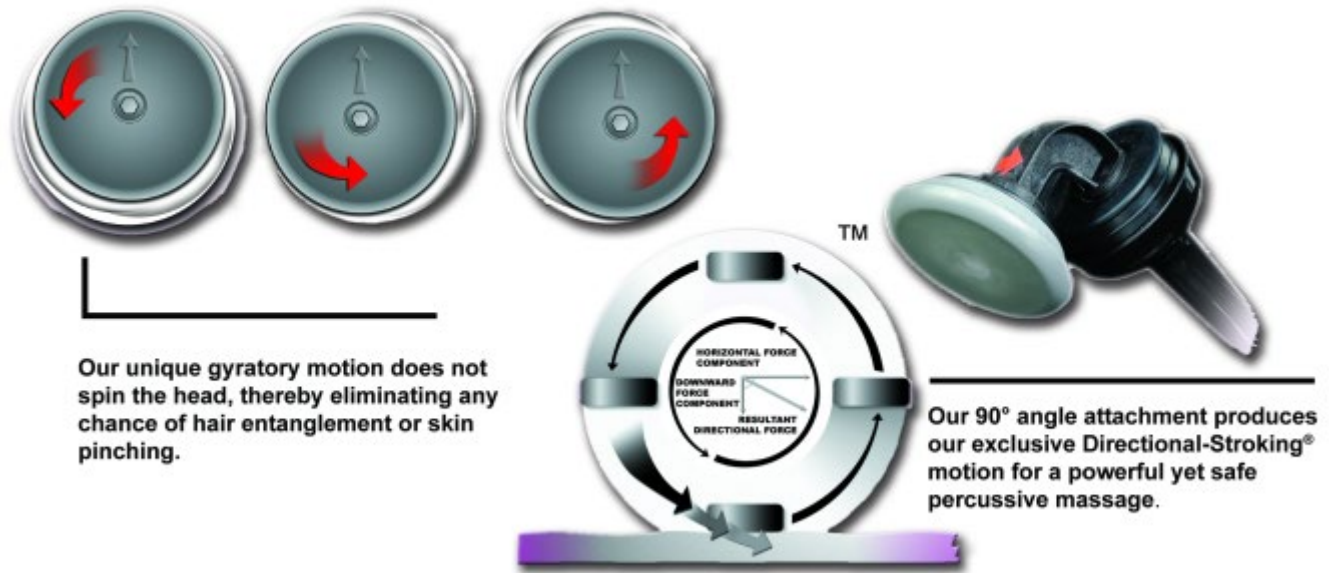
The GK-3 is a quiet & powerful Massage Machine designed for rugged use in the office, clinic, school, gym, training room or home. The GK-3 is the model preferred by chiropractors but is also widely used by physical therapists and massage therapists. Each GK-3 has a 6 ft long, light-weight, smooth treatment cable attached to a durable applicator head, to provide greater versatility and ease of use.

The GK-3 method consists of the application of vibratory waves ranging from 15-60 CPS (Cycles Per Second) arranged as LOW, MEDIUM, and HIGH settings, which are applied by using the oscillating head of our massage machine along with our range of specialized G5 Brand applicators.

The movement of the applicator on the body, at variable oscillating speeds and power, with or without body cream or gel, transfers the vibratory power of the massage head to the body, and to its underlying tissues (muscles, vessels, body fluids, connective tissues.)

Your GK-3 is to be used with a range of many different G5 Applicators that have been developed to maximize the actions of vibratory waves for the specific treatment desired, while providing proper consideration to the sensitivity of the area under treatment.

The G5 Difference is Directional Stroking



Deluxe Therapy Applicator Package

Name		Description & Usage
AP209		Used for full percussive effect from the entire surface of an applicator. This full percussive effect is obtained because the face plate of the head assembly describes a circular motion imparted to it by an eccentric cam inside the head. By screwing one leg of the percussion adaptor into the face plate, and affixing an applicator to the other, the oscillatory effect produced by the face plate is changed into a percussion effect. Note: Never use the percussion adaptor over 35 CPS
AP212		A small but mighty 3-1/2" diameter soft sponge applicator designed for gentle massage over sensitive body parts and for postural drainage procedures.
AP215		Designed for vigorous massage and surface stimulation over large body areas such as the thighs and glutes.
AP216		Four firm half-balls of smooth-surfaced rubber. This applicator is designed for deep massage of major muscle groups, such as the thighs, back, shoulders, and glutes. The applicator is designed for heavy pressure massage & is often used on athletes or heavily-muscled individuals.
AP227		A large plastic cone with a 1/2" diameter soft-rubber tip. It is used to reduce trigger points; for all varieties of pressure techniques, and; wherever the thumb would normally be used in muscle-goading techniques.

Deluxe Therapy Applicator Package

Name		Description & Usage
AP229		5" diameter, rubber applicator perfect for postural drainage when used with the AP209 Right-angle Adapter to produce a pronounced percussive effect.
AP230		A semi-rigid contoured plastic back with a soft, detachable polyurethane sponge liner. This applicator is most popular, both for massage of body limbs and for massage of the lower back. This applicator is also used in postural procedures (without the percussion adaptor AP209) to provide vibration and mild percussive effects.
AP242		Suction applicator for use in reducing cellulite. Experience a spa-like treatment and achieve smoother skin. Also useful for postural drainage when combined with the AP209 Right-angle Adapter. The unique cupped design mimics the advanced cupping techniques used by respiratory therapists.
Applicator Covers		Applicator covers come in three sizes Small (AP234D), Medium (AP235D), and Large (AP236D). It is recommended that plastic applicator covers be used with our applicators because the covers are hygienic and can be washed, they save wear and tear on the applicators, they permit the applicator to slide easily over clothing or toweling, without bunching up the material and they permit the use of alcohol, or lotions without soiling the applicator.

Applicator Maintenance

To Clean: Using a clean soft cloth, apply a warm water and mild detergent solution. Do not submerge applicators in cleaning solution or water. Gently rinse with clean water and wipe dry. Do not use any solvents.

To Disinfect: Use 70% Isopropyl Alcohol applied to a clean, soft cloth to wipe down surfaces.

Turning it On & Off

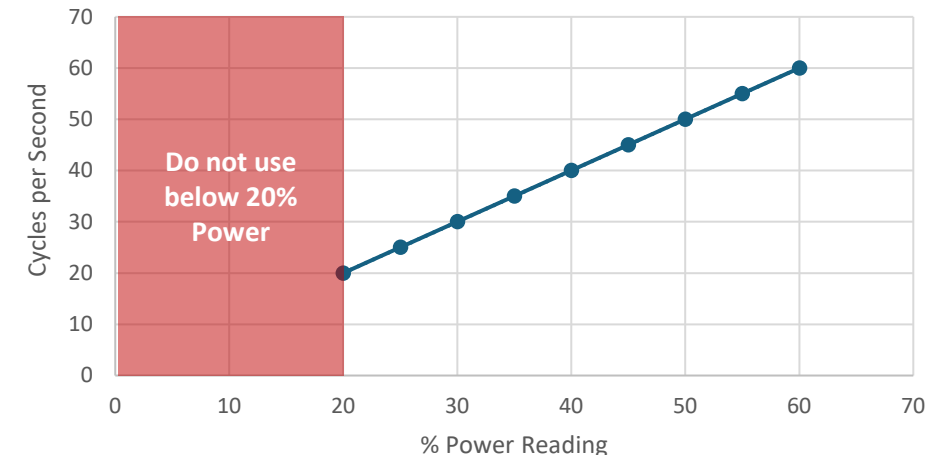
- Holding the treatment handle in your hand, press the control knob once to turn on.
- Your machine will turn on to the power setting it was at when last turned off.
- The digital display shows the percent power reaching the treatment handle and is limited to 60% which equates to 60 Cycles per Second (CPS) or 3600 Cycles per Minute.
- To turn off your machine, simply push the control knob once.

Frequency Selection

CPS	Usage
High 45-60 CPS	• Relaxing specific muscle groups & reducing muscle spasms • Goadng Muscle Joints • Reducing Trigger Points • Specific or General Warm-up prior to exercise • Analgesic or "Pain Masking" • Stimulate Local Circulation
Medium 30-45 CPS	• Same as High Frequency but with deeper penetration
Low 20-30 CPS	• Postural Drainage (using AP209 adaptor) • Toning Muscles • Working Over Sensitive Areas • Use with Children, Elderly, & Patients Sensitive to Vibrations



Digital Readout to Cycles per Second



How to Operate your GK-3

Vary the Effect

The physical effect of a Massage and Percussion Machine (i.e. the type of combined rotary-oscillatory-percussive effect it will deliver to the client) is determined by four factors: (1) the kind of applicator used; (2) the angle at which the applicator is applied; (3) the pressure exerted on the applicator, and; (4) the speed of motion of the applicator head.

Applicator

The effect the therapist wishes to obtain will be determined in part by the applicator selected. The various kinds of applicators are described in this Manual, along with their recommended use.

Angle

Placement of the face of an applicator parallel to the body produces an oscillatory or vibratory effect. Placement of the edge of an applicator perpendicular to the body produces a percussive effect. Varying the angle produces a mix of vibration and percussion.

Note: If the Percussion Adaptor No. 209 is used, effects exactly opposite to the above are produced.

Pressure

Varying the pressure can greatly change the effect. However, because of our machine's deep penetration, you do not need to use heavy pressure. Always confirm with the client to determine if the pressure used is comfortable or painful.

How to Operate your GK-3

Holding the Head Assembly

Hold the handle of the head assembly as you would a pencil, namely, between the thumb and fingers, with your fingers spread over and on the beveled surface of the head assembly. This provides you with maximum control and minimum fatigue.

NOTE: DO NOT GRASP OR HOLD THE RUBBER CUFF This will cause very rapid wear and will quickly destroy the rubber cuff. Do not tightly grasp the handle either. Grasping the handle in your fist, in most cases is somewhat more awkward, and in fact gives you less control over the applicator. The weight of the head assembly, resting on a client who is prone, is normally enough to produce sufficient pressure for satisfactory results. In such cases, you need only to guide the head without exerting additional pressure with your hand.

Use Both Hands

Maintaining contact between practitioner and client is essential for all procedures. When applying the applicator head, always use both hands. Hold the head assembly in one hand and use the other hand to “feel out” the body area you are treating, to guide the applicator, and to feel for bony protuberances, which you should avoid. A good technique is to hold the massager in one hand and palpate the tissue ahead of the applicator. In some instances, it is important to lift and support the tissues toward the applicator.

Moving the Head Assembly

Move the applicator very slowly! Fast, jerky or random movements annoy the client. Always work distal to proximal, in the direction of venous flow (toward the heart). When you move an applicator from one side of the back to the other, lift it over the spinal column. Sliding the applicator across the spinal column may cause discomfort. Slow gliding movements are best as are holding the applicator in one area and then moving to the adjoining area with a slight lift between.



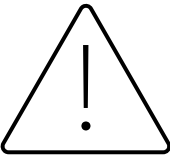
Manifique Technique!

How to Operate your GK-3

**Treatment
Timing**

Because of the machine’s strong effect and deep penetration, it is inadvisable to use it too long over one part of the body. Over-use can produce soreness. Although the timing of treatment depends upon the client and the conditions being treated, the following may be used as a general guide:

Treatment	Timing
Trigger Point Reduction	Two to six seconds. Too much time can re-traumatize the area and possibly bruise the skin.
Localized Muscle Relaxation	Two to Five Minutes on the Specific Muscle or Muscle Group
General Body Relaxation	Three to Five Minutes
Postural Drainage	See Manual on Postural Drainage



Warning

Do not allow your machine to run unattended. Running the machine for extended periods of time can cause the head assembly to heat up which could cause burns if applied to a patient’s skin.

Physical Therapy Protocols

General Physiotherapy's line of G5 Brand Massage/Percussion products are designed to incorporate machine assisted massage therapy into physical therapy procedures.

Our G5 Massage Machines help you to manipulate the soft tissue of the body to produce the desired effects on the nervous and muscular systems, as well as working to enhance local and general circulation of the blood and lymphatic fluids.

As you gain familiarity with your machines, you undoubtedly will develop many procedures helpful in your practice. However, here are some procedures that have proven effective in the field.

Application

Soft Tissue Injuries	Maintain mobility within the tissue structures of ligaments, tendons, and muscles to reduce atrophy and adherent scars.
Muscle Spasms	Relaxes muscles which allows for manual or mechanical manipulation of the area.
Pressure Sores	Increases surface circulation which reduces arterial degeneration. Massage assists in reducing the height of bony protrusions by relaxing the muscles surrounding the bone. G5 exclusive Directional-Stroking® technology allows you to transport away toxic tissue fluid as you safely treat the perimeter around pressure ulcers.
Edema Reduction	Increases circulation by means of the generation of heat; assists in mobilizing edema fluids from an area; restores mobility.
Increased Circulation	Higher frequency vibration causes vasal dilation resulting in increased blood flow. This brings nutrients and oxygen to localized areas.
Trigger Point Therapy	Relieves the tension build-up or muscle contraction of the hypersensitive area that can evoke pain elsewhere in the body when stimulated.
Lymphatic Drainage	Provides detoxification of lymphatic systems by mobilizing lymphatic fluids and draining excess tissue fluids.
Continuous Passive Movement	Massage increases range-of-motion by reducing edema and relaxing muscle swelling that can occur during inactivity. Higher frequency vibration releases endorphins, which result in an analgesic effect to an area of treatment.

Reducing trigger points

Set speed of your machine to its highest speed and use Applicator Number AP227.

Locate the trigger point with one hand and, holding the applicator handle between your thumb and fingers, place the tip of the cone squarely on the trigger point. Apply lightly pressure, then increase pressure slightly and hold for 2 to 6 seconds. Repeat for other spots. Do not apply excessive pressure and do not apply for more than 10 seconds, because you might bruise the client, or re-traumatize the area. Some therapists treat several trigger points in succession. They go over all the trigger points briefly, then return to the initial trigger point treated and repeat the process.

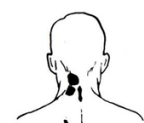
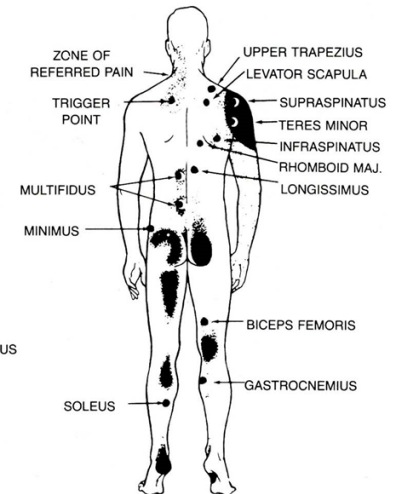
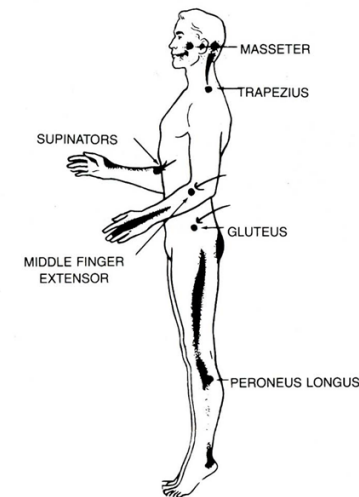
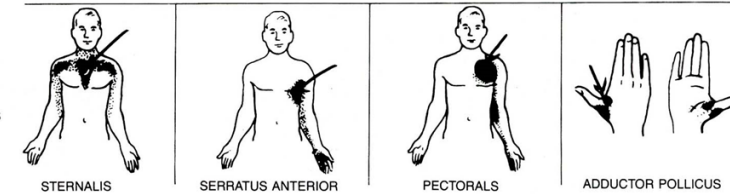
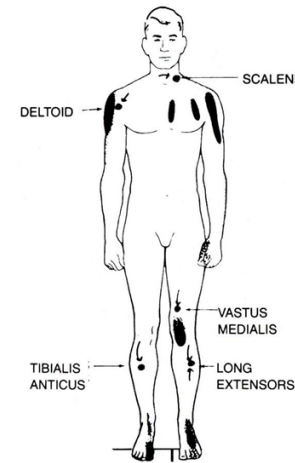
Your GK-3 can be used on the most sensitive trigger points without undue discomfort to the client, because vibration tends to have a masking effect on pain. The usual client reaction is: "Ouch." Then, almost immediately, "Ah, it feels so good." You can also treat over clothing or toweling.

This procedure can reduce most trigger points comfortably, and has the second advantage of stimulating local circulation, which helps oxygenate the area and assists in mobilizing lactic acid and other waste products. The full effect of the procedure, therefore, may not be felt for 20 to 30 minutes later.

Note: Some trigger points may not respond to this procedure and will require other treatment.

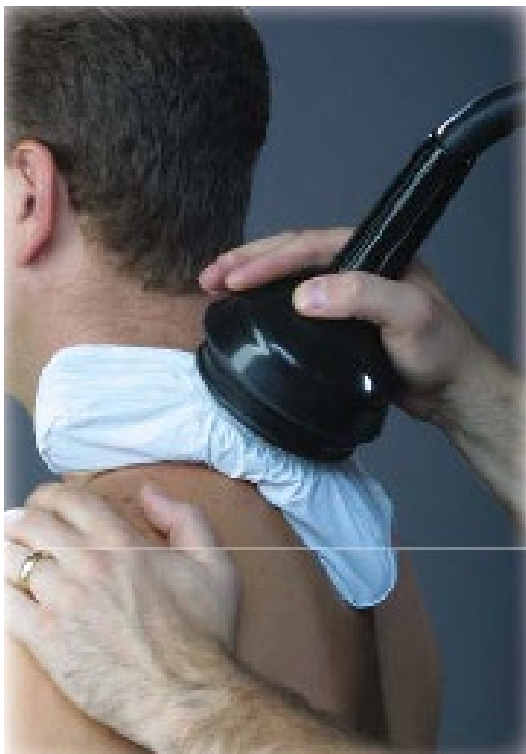
TRIGGER POINT LOCATIONS

THE CHARTS BELOW SHOW THE LOCATION OF TRIGGER POINTS WHICH CONTROL PATTERNS OF PAIN AND REFERRED PAIN. THESE TRIGGER POINTS CAN BE QUICKLY FOUND WITH A CONE-SHAPED APPLICATOR AND REDUCED THROUGH PRESSURE TECHNIQUES.



Protocol for Treatment of stiff neck & Shoulder girdle

Note: Because this is a critical area, check first for neck injuries or other contra-indicative conditions. Do not apply heavy pressure.



AP230 Applicator with AP236D Cover

Application	Speed	Duration	Applicators	Technique
Stiff Neck	Medium to High	2-5 Minutes	AP230, 223, 217	First, relax the neck area by applying Applicator 230 over the shoulders and down the spinal column. Then, lightly, work the cervicals with Applicator 223 or, for a gentler effect, with Applicator 217. At the base of the skull, work down each side of the cervicals to the base of the neck. Apply light pressure for 6 to 10 seconds only. Then, work over the trapezius.
Shoulder Girdle	Medium	2-5 Minutes	AP216, 230	For heavy musculature, or well-defined effect, use the harder Applicator 216; if a gentler effect is desired, use Applicator 230. Work the applicator up the arm to the shoulder, around the shoulder joint and into the armpit. Then, work over the shoulder to the base of the neck. You can combine this procedure with the trigger point reduction procedure explained above or introduce other procedural variations which you feel can be useful. This procedure is used often in the training room to “warm up” the throwing or pitching arm. It can also be adapted for “warming up” other joints.

Protocol for relaxation treatments

Note: Before treatment, first check for any injuries or other contra-indicative conditions. Do not apply heavy pressure.

Application	Speed	Duration	Applicators	Technique
Along the Spine	Medium to High	3-5 Minutes	AP216, 223	Place either of the applicators (Number 216 or 223) astride the base of the neck or at the base of spine with balls straddling the spinal column. Move the applicator slowly up or down. At the base of spine, tilt the applicator and press downward to cause the effect to travel down the legs. You may also want to work over the broad surfaces adjoining the spine for localized relaxation and stimulation of circulation.
Lower Back	Medium	2-3 Minutes	AP216, 212, 223, 229, 230	Positive effects can be achieved with the use of various applicators depending upon the practitioner's preference, can often assist in relieving low back pains. Apply to the lumbar-sacral area to relax muscles, stimulate circulation, and relieve pain. Applicators that are particularly suited for this application are Applicators 216, 212, 223, 229 or 230. Apply in circular movements to the lumbar part of the back. Use alternatively transverse movements with circular movements to the area.
Total Body Relaxation	Medium to High	2-5 Minutes	Applicator of Choice	With client in prone position, apply the applicator of choice to the soles of feet and work up the legs to the waist. Do the same with the arms, starting with the hands and working to the shoulder (always work limbs in direction of venous flow). Then, place the applicator on each side of the spine and move it slowly up or down the back. You may or may not, depending upon how your client is reacting, work the applicator over the sides of the torso. Two to five minutes can relax the average person. With children, elderly clients, or over-sensitive persons, you may prefer to use Applicator 210 or 212 instead of the Applicator 230.

Protocol for relaxation treatments

Note: Before treatment, first check for any injuries or other contra-indicative conditions. Do not apply heavy pressure.

Application	Speed	Duration	Applicators	Technique
Legs	Medium to High	3-5 Minutes per Leg	AP 217, 210, 230	With client in the prone position (lying with the front or face downward), apply Applicator 217 to the bottom of the heel, so that vibration travels up the leg (if the client is excessively ticklish, use Applicator 210). Work over the sole of the foot or plantar surfaces, curling toes over the applicator and manipulating the entire foot with your hand. After working the foot, change to Applicator 230 or 210, and work over the upper surfaces of the foot, over the ankles, and proceed slowly up the leg in the direction of venous flow. Make several sliding, smooth, then deep movements all over the leg. Work all sides of the knee and then proceed up the thigh to the hip. You may also work over the thigh and glutes with Applicator 216 or 229 for further relaxation. To relax the front, anterior, part of the leg, set the speed to MEDIUM and use Applicator 212, 216, 229 or 230. Start by making several smooth glide movements to the inner thigh, on either sides of the calf, and on the quadriceps to relax the leg. Always move following the venous circulation pathway (toward the heart). You can start each movement from the foot (upper or internal part) or front the knee. This procedure can help relax leg muscle tensions, stimulate local circulation, decrease muscle pain, and increase mobility. It is recommended for athletes or others who are on their feet a great deal, and for people with poor circulation, provided the procedure is not contra-indicated.

Protocol for relaxation treatments

Note: Before treatment, first check for any injuries or other contra-indicative conditions. Do not apply heavy pressure.

Application	Speed	Duration	Applicators	Technique
Knee	Medium to High	1-2 Minutes per Knee	AP227, 222	The objective of this procedure is to relax strains set up by the injured knee; to move blocked fluids or edema; and reduce swelling to stimulate local circulation; to help control pain, and; to increase mobility of the knee and leg.
Foot & Plantar Stimulation	Medium	1-2 Minutes per Foot	AP212, 217	Make several movements starting from the toes toward the heel. Apply deep gliding pressure – especially on the internal part of the foot.
Sinus & Congestion	Low or Medium	1-2 Minutes	AP210	The objective of this procedure is to provide drainage of the congested area. Place the fingers of your hand on your client’s forehead, and then place the applicator firmly on the back of your own hand, thereby transmitting the effect through your hand and fingers, to the client’s forehead. Next, using the same procedure, work your fingers from the lobe of the ear, over the sinus passages to the base of the nose. Then, draw your thumb (with the applicator placed over it) down along each side of the nose. BE VERY CAREFUL TO AVOID THE EYES. If your client hasn’t sneezed by now, lightly touch the applicator to the tip of his nose. NOTE: You can also apply Applicator 210 directly to the client’s forehead; some people prefer this, others prefer the indirect touch through the fingers.

Respiratory Therapy Procedures



A patient enjoying GK-3 treatment

Introduction to Mechanical Percussion

General Physiotherapy's G5 Massage Machines are designed to treat patients of all ages who have chronic obstructive pulmonary disease or irregular breathing or coughing patterns. Our percussors, performing pulmonary drainage procedures, aid in lung ventilation and pulmonary hygiene by removing accumulated secretions that cause increased airway obstruction, resistance and infection. These are the only percussors able to dislodge and liquefy viscous secretions and offer directional control in the movement of secretions toward the upper airway. This directional mobilization is a primary consideration, since transient hypoxia and dyspnea can be caused by stagnated secretions in the major bronchi.

Advantages of Machine Assisted Postural Drainage

- **Consistent Postural Drainage-** percussor never tires while uniformly duplicating the same action.
- **Comfort for the patient-** G5 Directional-Stroking Technology combines vibration and percussion to create a powerful yet comfortable pulsation.
- **Variable settings-** precise controls enable you to alter the depth of penetration to meet the needs of individual patients.
- **Techniques that are quickly mastered-** As an extension of your hand, operating a G5® Massage Machine percussor is intuitive.

Introduction to postural drainage

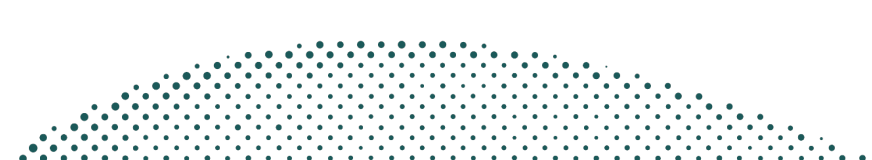
Note: Consult your respiratory physician before performing postural drainage and percussion procedures. Follow your doctor's advice and instructions.

Use of Percussors on Children & Elderly Patients

The effect of the GK-3 can be transmitted indirectly to a child through the therapist's hand or fingers, by placing the applicator over the hand. This makes possible an extremely sensitive and gentle treatment, with maximum feedback from the applicator with its soft polyurethane facing. Apply lightly on the back of your free hand, or over your fingers; then, with your hand or fingers only, work over the area to be treated. For very young children, use only one or two fingers; place them lightly on the child; and just touch your fingers with Applicator 253. The strength of the application can be increased as the client's condition warrants.

Stimulating the Cough Mechanism

Because of the deep and pervasive effect of the GK-3, whether percussive, vibratory, or a combination of the two, the cough mechanism in most cases can be readily stimulated. This stimulation can be controlled to a large degree by the way you apply the GK-3, and upon the client's condition and degree of responsiveness. For instance, applying the applicator in a "Steady Hold" position on either side of the sternum, and slightly increasing the pressure, usually will elicit a cough response. Easing up on the pressure can reduce the incidence of coughing. The same holds true for the other parts of the chest. The therapist should govern the treatment according to the condition and responsiveness of each individual client.



Introduction to postural drainage

There are several lung diseases that cause the retention of sputum in the airways. Airways are tubes in the lungs that air passes through. They are also called bronchial tubes. When the airways are irritated, thick mucus forms inside them. The mucus plugs up the airways and makes it hard to get air into the lungs and to have good gas exchange, which is essential for a healthy respiratory system. For persons with lung diseases it is paramount to reduce the amount of blockage in the airways. The inability to cough or when coughing doesn't expel the mucus, it will build up and make breathing even more difficult. An effective way to help move chest secretions from the bronchioles (the tiny airways in the lungs) to the throat where they can be coughed out is through postural drainage procedures.

Procedures involved in Postural Drainage

- Positioning so that gravity will promote maximum drainage of a specific region of the lungs.
- Percussion over the lung segment to help loosen the secretions or mucus.
- Coughing up and spitting out the mucus.

During postural drainage procedures the patient assumes various positions that will help their chest secretions move from various parts of the lung into the bronchi (the larger airways in the chest), then into the trachea (your windpipe) and finally into the throat. When the mucus and secretions enter the throat they will cause the cough reflex and the secretions can be expelled from the airways. Postural drainage therapy is a component of bronchial hygiene therapy. It consists of postural drainage, positioning, and turning, and is sometimes accompanied by chest percussion and/or vibration. G5 Percussors help promote airway clearance. The percussion action of the percussors helps to loosen the mucus from the walls of the airways. The Directional-Stroking Action then helps move the mucus into the upper airways so that it can be expelled. No other machine on the market helps both loosen the mucus and aid in its directional flow out of the lungs.

Introduction to postural drainage

Why Does Mucus Need to be Cleared Away

Mucus lines all the orifices of the body that lead to the outside world, like the nose and mouth, and helps lubricate those passageways and keeps harmful bacteria out of the body. Mucus is normally thin and slippery. It is designed to trap bacteria and move them out of the lungs. However, certain lung diseases cause mucus to become thick and sticky and not easily able to be cleared from the lungs. When this happens, the mucus can clog airways and make it difficult to breathe and can cause infections when bacteria is caught in the mucus. Airway clearance procedures help to move thick mucus out of the airways.

Chest Physiotherapy Techniques

Postural Drainage: Uses gravity to drain secretions from the peripheral airways to the larger bronchi, where they are removed by coughing.

Chest Percussion: Percussing with a mechanical percussor or cupped hand in various positions to loosen thick secretions from the airway walls to facilitate postural drainage.

How Does Bronchial Drainage Produce a Marked Effect?

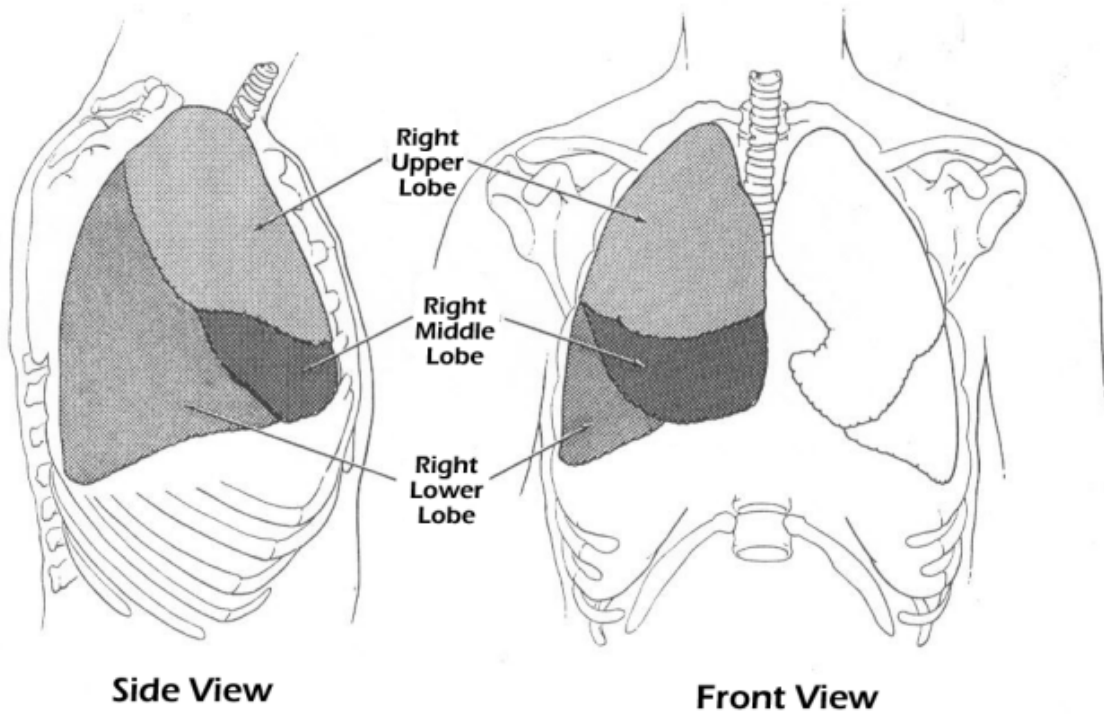
Chest physiotherapy is very important in lung disease management. The main principle of bronchial drainage is the use of vibration to free entrapped mucus and to use gravity to assist in its clearance. Because sticky mucus accumulates deep in the lungs, it cannot be expelled by coughing. Bronchial drainage can reduce accumulation of mucus in the windpipe of the lungs.



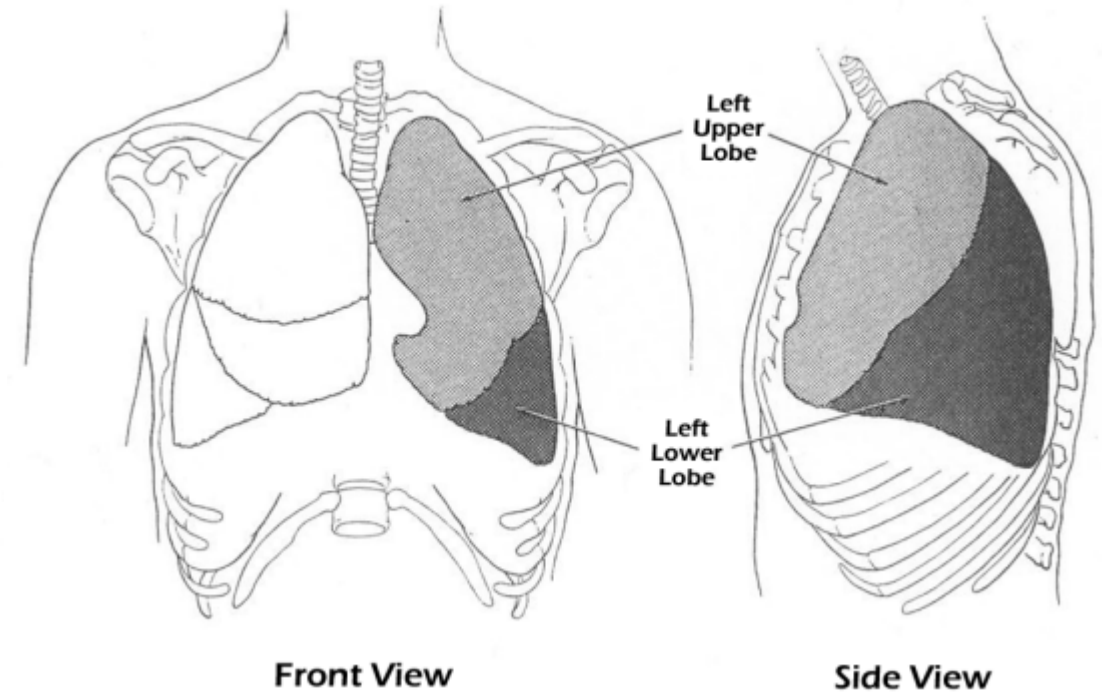
Basic Respiratory system Anatomy

Before beginning postural drainage procedures, it is important to have a basic understanding of the structure and function of the windpipe, airways, and lungs.

Right Lung Lobes



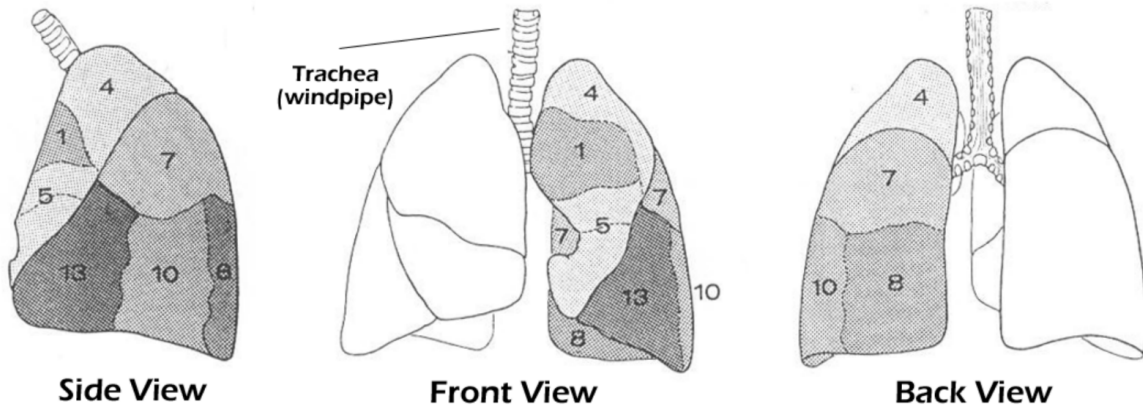
Left Lung Lobes



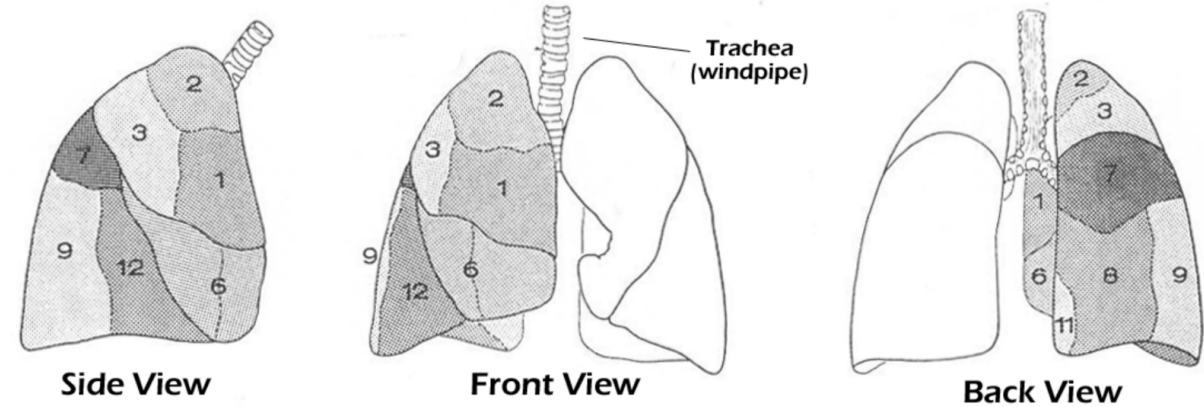
Basic Respiratory system Anatomy

Note: The numbers of the Lung Segments Correspond to those of the Postural Drainage Procedures later in this document. For example, postural drainage position #2 drains lung segment #2.

Left Lung Segments



Right Lung Segments



Basic Respiratory system Anatomy

Clearing the Airways Before Beginning Procedure

Prior to assuming a drainage position, loose secretions should be expectorated by a series of short throat-clearing coughs, first in the upright position, then lying down.

Tolerance

The number of positions used, and the amount of time spent on postural drainage depends upon the extent of the disease and the tolerance of the patient.

Suggested Timing of Treatment

The two best times for treatment are in the morning after you wake up to get rid of the night's accumulation of secretions, and just before bed, to clear the airways to promote a peaceful sleep.

Percussion & Vibration

The purpose of percussion and vibration is to physically loosen secretions that have plugged the airways by vibrating that portion of the lung beneath the treatment area. The postural position the patient is in takes greatest advantage of forces of gravity in moving the loosened secretions into larger airways and into the throat where they can be coughed up.

Supplies You Will Need

- G5 Percussive Device
- Tissues
- Pillow
- Body Positioning Board or Large Pillows (Recommended)

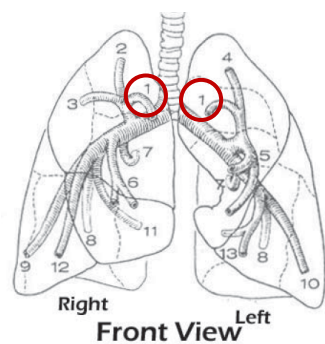
Postural Drainage

Speed Setting for All Postural Drainage Indications is 20-30% Power or 15-30 CPS

Indication

Protocol

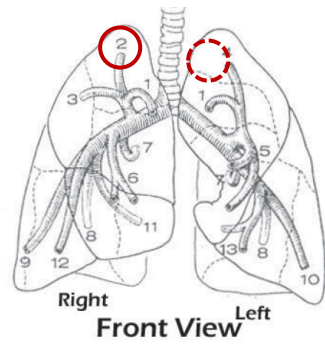
Patient Positioning



Left/Right Lung & Bronchial Segment #1

Place the Percussor just under the left collar bone, then under the right collar bone. Make sure that the red arrow is facing the midline of the body (facing the sternum).

Lie on your back with your head and knees supported by a pillow.



Left/Right Lung & Bronchial Segment #2

Apply the Percussor over the top of the shoulder. The therapist should stand behind the patient.

Sit in an upright position, then lean slightly backward, then slightly forward. Next lean slightly to the right side, then slightly to the left side.



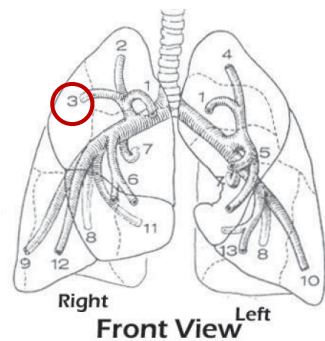
Postural Drainage

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Indication

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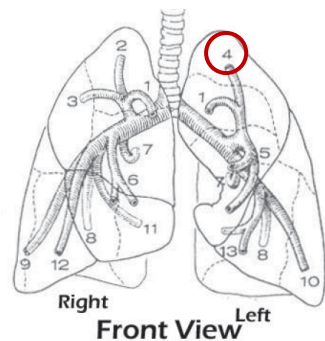
Patient Positioning



Right Lung & Bronchial Segment #3

Set the Percussor to its lowest setting and apply over the upper portion of the shoulder blade.

Lie on your left side with a pillow or your arm under your head and/or the front of your body. Roll forward slightly so that you're not completely on your side but not completely laying on your stomach.



Left Lung & Bronchial Segment #4

Apply the Percussor over the upper portion of the shoulder blade.

Lie on your right side with the head and chest elevated.



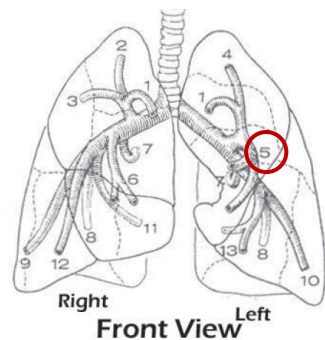
Postural Drainage

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Indication

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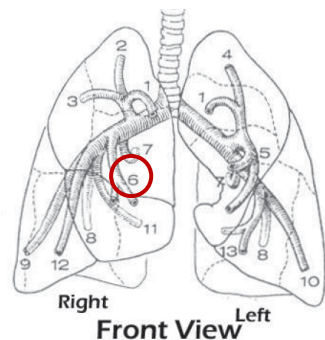
Patient Positioning



Right Lung & Bronchial
Segment #5

Apply the Percussor on the front of the left side of the chest.

Lie at an incline on your right side with your head and chest lower than your hips and lean back slightly so that you're not completely on your side, but not completely on your back. Support your back with a pillow if you need to.



Left Lung & Bronchial
Segment #6

Apply your Percussor to the front of the right side of the chest.

Lay exactly like instructed in Position #5, but switch sides so that you're laying on your left side with your head pointing to the ground.



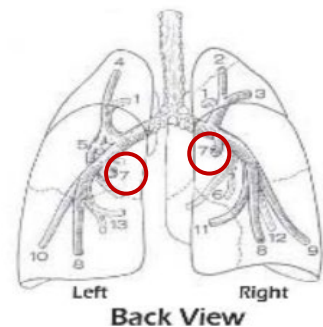
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Indication

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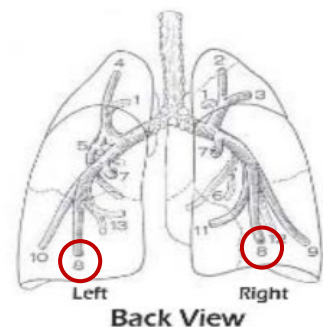
Patient Positioning



Right & Left Lungs & Bronchial Segments #7

Apply the Percussor at the lower tip of the shoulder blade.

Lay face down with a pillow under the hips.



Right & Left Lungs & Bronchial Segments #8

Apply the Percussor to the lower portion of the rib cage toward the spine. Avoid percussing directly over the spine or below the ribs.

Lay inclined with face down.



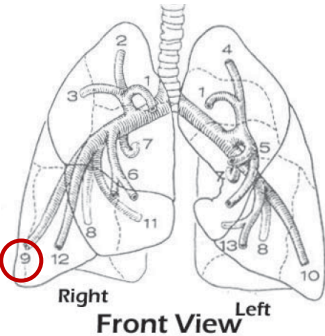
Postural Drainage

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Indication

Protocol

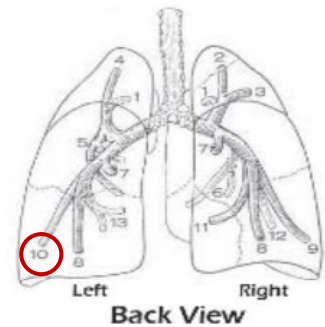
Patient Positioning



Right Lung & Bronchial
Segment #9

Apply the Percussor toward the lower ribs over the side of the chest. Do not go below the ribs.

Lay extremely inclined on the left side of the body. Support the head and hip with a pillow.



Right Lung & Bronchial
Segment #10

Apply the Percussor toward the lower ribs over the side of the chest. Do not go below the ribs.

Lay as in Position #9, but this time lay on the right side of your body.



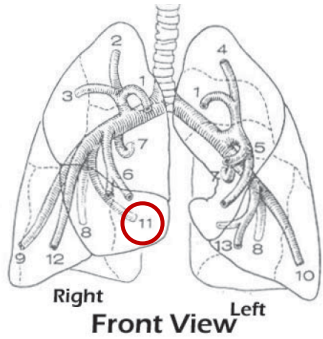
Postural Drainage

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Indication

Protocol

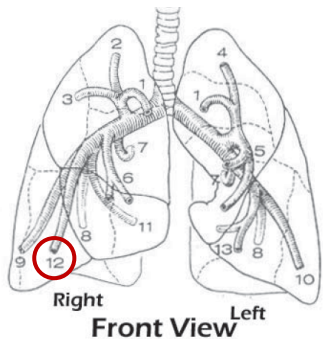
Patient Positioning



Right Lung & Bronchial Segment #11

Apply the Percussor just below the right nipple and toward the breastbone. The red arrow should be facing in.

Lay very inclined on your back.



Right Lung & Bronchial Segment #12

Apply the Percussor to the lower 1/3 of the right rib cage. Do not go below the ribs.

Lay very inclined on your back and turn slightly to the left.



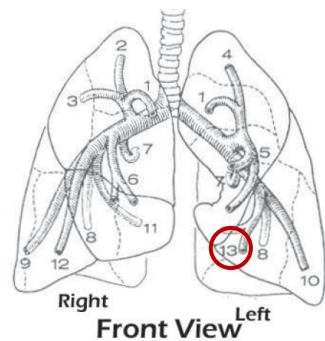
Postural Drainage

Speed Setting for All Postural Drainage Indications is 20-30% Power or 15-30 CPS

Indication

Protocol

Patient Positioning



Left Lung & Bronchial
Segment #13

Apply the Percussor to the lower 1/3 of the left rib cage. Do not go below the ribs.

Lay like in Position #12 but turn slightly to the right.



Technical Specifications



Specification	Imperial	Metric
Motor	24v DC	
Output Speed	15 – 60 CPS	
Speed Control	Dial, with digital display	
Input Power Source	100 – 240v, 50/60 Hz	
Power Cord Length	10 ft	3.0 m
Treatment Cable Length	6 ft	1.8 m
Housing Material	ABS Cycolac stand housing, PAHT-CF handle	
Unit Dimensions	15 x 15 x 8 in	38 x 38 x 20 cm
Assembled	22 x 22 x 45 in	56 x 56 x 114 cm
Unit Weight	10 lbs	4.5 kg
Assembled Weight	20 lbs	9.1 kg
Shipping Dimensions	22 x 22 x 18 in	56 x 56 x 46 cm
Shipping Weight	34 lbs	15.4 kg
Mounting	Rolling stand or desktop	
Clearance	FDA-cleared therapeutic massager	
Warranty	3 years, to the direct purchaser	
Origin	Made in the USA, St. Charles, Missouri	

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