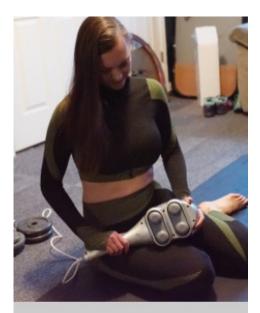


# Vibration massager usage guide

If used correctly, genuine vibration massagers will allow you to have quality massages without needing the expense and appointments of a professional therapist. To help you get the best massage possible we will discuss how to use your massager safely and effectively.

#### It is important to note that:

- 1. Genuine vibration massagers are serious therapeutic devices, and much different to the massage guns and other massagers you commonly see. More information about this in the <u>appendix below</u>
- 2. We give you usage techniques appropriate for these massagers rather than the ineffective techniques commonly used (even by professionals).



In this article we will show you how to safely and effectively use your massager

### **CONTENTS**

What are vibration massagers

How to use a vibration massager

Special instructions for our quad head massager

Common mistakes

Advice for specific uses, conditions and muscle groups

Massage guns and "consumer massagers"

# What are vibration massagers

Vibration massagers are those that have a vibration pad that sits on the surface causing therapeutic vibrations to penetrate. They are completely different to massage guns (percussion massagers) and common "consumer massagers". For why they are different <u>see below</u>

### The benefits of vibration massage

Just like ultrasound (vibrations at a different frequency) the vibrations from a professional strength vibration massager are able to easily penetrate deeply into your muscles, while scientists have identified a host of therapeutic effects as shown in this diagram. For information on the effects of vibration massage for specific conditions and uses please see the <u>section below</u>.



# How to use a vibration massager

For this section we will use our <u>General Purpose Massager</u>, but the same principles apply for any quality hand held vibration massager.

#### In this section

- 1. Professional guidance
- 2. The basic technique
- 3. Pain or discomfort
- 4. The massager contact and direction
- 5. Choosing the best setting
- 6. How long to apply the massager for
- 7. Using over cloth or clothing
- 8. Using the weight of the machine
- 9. Which head to use
- 10. Where not to massage
- 11. Special advice for quad head massager

# Professional guidance

Serious hand held massagers are built to provide genuine therapeutic benefits to help with musculoskeletal problems, and these can be complex. Because of this, to be safe and get the best possible results if you have a problem we ask that you discuss usage with a professional familiar with your own needs. He or she can help work out what you need and the best way to manage your problem.

## Basic usage technique

The basic usage of a vibration massager is simple. You sit the massager on the part to be massaged and let the vibrations soak in. **Remember that it is the vibrations that do the work so there is no need to press in or move the massager around**. Once a part has had sufficient massage move the machine to the next spot that needs massaging and repeat.



You sit the massager on the part to be massaged and let the vibrations soak in

### Pain or discomfort

The basic usage of a vibration massager is simple. You sit the massager on the part to be massaged and let the vibrations soak in. Remember that it is the vibrations that do the work so there is no need to press in or move the massager around. Once a part has had sufficient massage move the machine to the next spot that needs massaging and repeat.



There is no need for pain when using a vibration massager

# The massager contact and direction

To get the maximum penetration the head of the massager needs to make the best contact, so it should should sit flat on the part to be massaged. At moderate speeds the weight of the machine should be enough to maintain contact. However, as speed increases the massager head will have a tendency to patter (bounce up and down). When this happens either slow the machine down or apply a moderate amount of pressure until the head stops pattering.



Head pointing into the muscle with best contact for vibration transfer

## Choosing the best setting

As discussed in our article <u>The best setting for your massager</u>, the frequency of the vibrations is most important. This is the rate of vibrations, and is measured in Hz (cycles per second). As discussed in the article, for the main benefits such as relaxing muscles, increasing circulation and speeding recovery the therapeutic range is 30-60 Hz, with around 50 being the best. Many machines express speed as rpm, so this is 1800-3600 rpm, with optimal being 3000 rpm.

### Best speed for the General Purpose Massager

50 Hz is approximately 85-90% of full speed on one of our General Purpose Massagers.

### It is unsafe to use this speed with a massage gun

Massage guns come with hard plastic heads and the powerful ones drive them in up to 16mm. Driving something into your muscles 16mm 50 times a second could cause carnage, so Theraguns have a maximum of 40 Hz, but even that is way too fast. A survey of professionals found that most used their massage guns on "slow" or "medium" (2). This is way outside the therapeutic range.

# How long to apply the massager for

The duration of application should always be guided by your professional. However a typical starting point is 30 seconds at a moderate speed for a typical trigger point (60 for chronic deep trigger points). There may be multiple trigger points in an area, each needing an application of massage.

Like most hand held massagers our General Purpose Massager is a sealed unit. This keeps out dust and moisture but holds in heat which can damage or shorten the life of parts. Always allow to cool after 15 minutes of use.



Starting point: 30 seconds per trigger point

# Use over clothing or a cloth

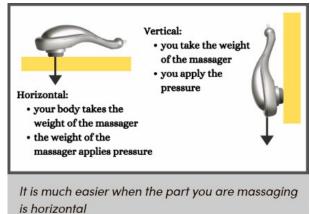
To prevent irritation, minimise the risk of transmitting infection, and help keep the head of the massager clean please use over cloth or a layer of clothing. You will not need to rub with the massager so there is no need for oil or other lubricants.



Use over cloth or clothing to avoid infection or skin irritation

## Using the weight of the massager

Our General Purpose Massagers only weigh about 1.3kg, but holding this weight for a prolonged time can cause fatigue. We recommend that you position the part to be massaged horizontal. That way the weight of the massager is supported by the part being massaged and the massager only needs guiding to maintain position. The weight of the massager then is often enough to apply downwards pressure on the head.



is horizontal

#### Which head to use?

There has been a lot of very poor and misleading information circulated about wich head to use in a massager. Most originates from massage gun marketers. As discussed below, although it is the vibrations that penetrate and have the therapeutic effects they advocate driving the heads of their machines in and give totally wrong advice like that you use bullet head to get into deep spots. Also, most machines come with an assortment heads that are just gimmicks. Our general purpose massager comes with three heads (pictured below) with specific functions, so I'll show you how these are used.

#### The flat head

It is the vibrations that have the therapeutic effects, and the flat head is by far the best at transferring vibrations to the muscles. In clinic I'd use that head more than 95% of the time.

### The smaller dome shaped head

The smaller rounded head is not not for penetration as a massage gun people suggest. Actually it won't deliver vibrations as well as the flat head so it penetrates less, but there's places like inside the arch or your foot where the larger flat head doesn't sit well, but the dome shaped one does..

# The multi projections head

You may have seen gimmicky massagers with projections that are supposed to dig in, but that's not what those on the projections on our head are for. The flat head has the most surface area so it gives the best vibration transfer, but as discussed earlier it has a tendency to patter when you get some speed up so you may wish to slow the machine. Alternatively, you may also wish to slow the machine if it becomes uncomfortable.

However, as discussed above, the therapeutic vibration range is 30-60 Hz, with about 50 being ideal, so slowing the machine may take it outside this range. The multi projection head is not as efficient at transferring vibrations, but it it is comfortable and doesn't tend to patter so you may be able to use it at the effective 50 Hz where you can't with the flat head.



The flat head is best for vibration transfer



Smaller head for focused massage or hard to get at spots



These small projections help stop the head pattering at higher speeds

## Where not to use a vibration massager

Because it is only the vibrations that penetrate vibration is generally very safe as long as you stick to massaging healthy muscles (or fatty tissue for cellulite massage). However, please note the following precautions.

### Always avoid the following

- Bony parts, including joints and your skull
- Varicose veins or swollen or inflamed areas
- Skin disorders or open wounds
- Injuries or bruising
- Tumours, phlebitis, haemorrhage or thrombosis
- Exposed arteries and veins, including near the collar bones, the armpits, crook of the elbow, front groin, back of the knee

# Discuss with a professional

- Have a pacemaker or have a heart condition
- Are pregnant or suffer diabetes
- Have any chronic medical condition including bleeding disorders

# Using our quad head massager

Our <u>quad head massager</u> allows you to massage a much larger area at once, however, after doing a survey of colleagues we found some that did not understand how to use them correctly, including some who thought the quad massagers were too heavy even though they are practically the same weight as a General Purpose Massager. In response we made this short video on how to use a quad.

### Click image to open



Watch on YouTube - https://youtu.be/ncMkF9ulGUI

# Common mistakes

As this diagram shows, when lumberjacks started using chainsaws they need to use completely different techniques. Likewise, mechanical vibration massage works differently to conventional massage so it also needs different techniques. Despite this when using mechanical vibration most people, including professionals, still use conventional massage techniques.



# The problems this causes

Just like swinging a chainsaw like an axe, when using a vibration massager like conventional massager the results are far from ideal. Doing so reduces the effect and increases the risk of injury.

### Incorrect use reducing the effectiveness

When using mechanical vibration you need to allow the vibrations to "soak in" to have their therapeutic effects. Moving the machine around does not allow this. This video shows "YouTube Gurus" demonstrating massage that would be practically useless.

- The heads they are using are very poor at transmitting vibrations
- They are moving the heads not allowing vibrations to "soak in"
- The bit of running they are doing will have practically no effects

### **Increases the risk of injury**

Conventional massage techniques press into your muscles. When doing this with a massage gun you are effectively using a jackhammer.

# **Example of "YouTube Gurus"**



Watch on YouTube - https://youtu.be/wfzzcCgznM4

# Advice for specific uses, conditions and muscle groups

One of the major benefits of having your own hand held massager is that it allows you to have practically unlimited quality massage therapy. This opens up a host of opportunities. Please see the following for some examples.

# Musculoskeletal problems and pain syndromes

The simple effective way to treat trigger points yourself

Self massage and trigger point therapy for tennis elbow

Massage and trigger point therapy for shoulder pain

# Sports and exercise

The sports and exercise guide to vibration massage

The practical, science based guide to post exercise recovery

article on the effects of (myofascial) trigger points on sports and athletics performance

# Rehabilitation

Functional rehabilitation

Does vibration help healing

### Health and wellness

Massage for health and wellness

# Fibromyalgia and chronic pain

How to massage fibromyalgia

### Cellulite

How to massage for cellulite



# **Professionals**

DrGraeme massagers were originally built by Dr Graeme for use in his clinic, and to prescribe to his patients for additional self use at home. Now these are used by colleagues and other professionals for similar purposes. If you are a professional and wish to know more about this therapy, or possibly get a sample massager to trial please check out our <u>practitioner page</u>.

# Massage guns (percussion massagers) and ineffective "consumer" massagers

Most massagers on the market are **not** genuine vibration massagers, but rather less effective and often more dangerous massage guns or "consumer" massagers.

# Misinformation spread by massage gun marketers

Massage gun marketers have spread a lot of misleading and potentially harmful information, which unfortunately even a lot of colleagues have been guided by. We have seen <u>above</u> how this has resulted in using ineffective techniques. Below we discuss the misleading advice regarding massage devices, plus the proliferation of ineffective machines built by factories that just want to cash in.

### The truth about massage guns

As the <u>following infographic</u> shows, rather than sit on the surface and send in vibrations massage guns are designed to drive their heads into your muscles. Marketers have called this "percussion", and claim that this increases penetration and adds the benefits of conventional massage. **However, as discussed in our article** <u>Are massage guns effective- beyond the hype</u>, **these claims are false**. In summary:

#### Massage guns do deliver decent amounts of therapeutic vibrations

As shown in the infographic below massage guns do not deliver anywhere near the therapeutic vibrations of a proper vibration massager.

#### Massage guns do not penetrate further

Like ultrasound, therapeutic vibrations can easily penetrate much deeper (and safer) than the head of even the most powerful massage gun.

#### Massage guns do not add significant conventional massage benefits

There is no evidence that they do this, and it is extremely unlikely that pushing the head of a massage gun is in any way comparable to the massage provided by a professional therapist.

#### Massage guns are not scientifically proven

As discussed in our article <u>Are massage guns scientifically proven</u>, when massage guns are tested in trials they modify them so they do not drive their heads in, **but they do not tell you this**. To get half decent results and not hurt the patients they make them more like vibration massagers.

# Infographic: what are massage guns

# Pure vibration

Some handheld massagers sit on the surface and send therapeutic vibrations deep into your muscles.

# Driving heads in

Some handheld massagers are designed to physically drive their heads into your muscles.

#### Example of this technology

Pure vibration massagers use technology similar to this example of a construction compactor. They are designed to sit harmlessly on the surface while sending large amounts of vibration deep into the ground.

#### Example of this technology

Massagers that drive their heads in use technology similar to that of a jackhammer. They are designed to smash things on the surface while only vibrating the ground a small amount





### Example of hand held massagers

· Genuine therapeutic vibration massagers

### Example of hand held massagers

- Massage guns
- Percussion massagers





#### Effectiveness and safety

- Large amounts of therapeutic vibrations penetrate deep into your muscles
- Extremely low risk of causing any harm

#### Effectiveness and safety

- Delivers only small amounts of therapeutic vibrations.
- Heads penetrate and can easily do damage

### Ineffective "consumer" machines

A few years ago a team of UK university researchers found that massagers built for the public were ineffective because manufacturers were more concerned with how their machines looked on shop shelves than how they worked (1). If anything it is now much worse with huge numbers of factories making massagers and massage guns to cash in.

### Example of an ineffective "consumer machine"

Most days we get emails from factories trying to sell us these machines. A while back we were sent the machine pictured. It is actually a well known and popular brand, however it was practically useless. Like most similar machines it came with a host of gimmick shaped cheap plastic heads, so I glued on a decent one. When I tested it the power was low and the head did not go up and down enough to efficiently transfer the vibration. Where the vibrations from a proper vibration massager feel like they are going right through you this machine felt like it was just buzzing the surface.



Testing a consumer grade massager fitted with a proper professional massager head

#### References

- 1 McDonagh D, Wilson L, Haslam C, Weightman D. Good vibrations: Do electrical therapeuti c massagers work? Ergonomics. 2005;
- 2 Cheatham SW, Baker RT, Behm DG, Stull K, Kolber MJ. Mechanical percussion devices: A survey of practice patterns among healthcare professionals. Int J Sports Phys Ther. 2021;16(3):766–77.