PEMFs - General Use and For Inflammation Transcript

(Transcripts are generated by AI and may contain errors)

Introduction to Magnetic Field Therapy

This is Doctor Pollack. This session is going to be a slightly different format with the slideshow, because the the type of content that we have to provide.

So you're going to see a slideshow now instead of an interview with, with me directly. So this slideshow is going to be about healing with magnetic field therapy.

The video will be a blueprint for using PBS for your pain. We will cover the value of Pmfs to you better results. You'll see the conditions pmfs are pulsed.

Electromagnetic fields have been shown to help how they work. The critical factors that determine the effectiveness of magnetic field therapies. How to choose a device and the devices I recommend relative to pain.

In North America, pain costs adults between 10 to $15,000 per person per year. Those who have chronic pain, a quarter of adults suffer from pain, and nearly 30,000 people per year die from nonsteroidal anti-inflammatory drug or NCA drug induced stomach lesions or gastric bleeding.

About 100,000 people of all ages have chronic pain. So this is a big problem in our society and and our culture, and it deserves a lot of attention. And of course, people are looking for solutions.

And that's the reason for the Pain Solutions Summit. Helping people with chronic pain is still a big challenge, and there's a significant need for other, better and safer options than than are offered in the traditional conventional, medical system.

Past electromagnetic field benefits for pain from the research shows that joint pain in a study of over 3000 patients showed that they were 979% effective for shoulder pain, 83% effective carpal tunnel syndrome, 93% effective back pain, 95% effective elbow pain better than injections, which are commonly given by doctors because that's what they know what to do.

And migraines. At least 88% effective effectiveness rate across the spectrum. A different pain conditions will vary based on the type of pain you have and the cause of the pain.

But in general, magnetic field therapy is extraordinarily effective and safe. Now the benefits from far pain from perhaps come from improving the symptoms which happen relatively quickly.

Improving function which can happen in a relatively short period of time, and healing the tissue, which can take a lot longer because then you have to restore the tissue and recover the tissue.

So if you break a bone, it's still going to take you months even to heal the bone completely. You can use it quicker, but it's going to take you a long time to heal, and we'll get into that in a second.

All of these changes are benefits for pain from PMS happen progressively, progressively with continuing use.

Pain Burden and Why PMF Matters

Now, the use of PMS is rapidly expanding among consumers and health professionals. From when I started with PMS about 30 years ago or 20, 25 years ago, there was very, very loose, very little use and very few people knew about them.

Now, who really wants to be left behind? Why waste time and why continue to suffer? When you have a handy,

accessible tool available to you? Now? Magnetic Field Healing is using PMS as an advanced, powerful, safe and integrative and natural solution or method of healing.

It's integrative because it integrates well with all kinds of other therapies. And significantly, we'll get into some of that as well as we go on. And it's natural because it uses the body's own capacity to heal.

The advantages of PMF therapy are that it's not toxic, it's not a drug therapy, it's not invasive. You don't need surgery or injections. Sometimes you do.

There are appropriate times for those as well, but it stimulates the body's own capacity for healing. You can keep reusing it. Once you have a system for yourself, you can keep using it over and over and over again.

And it's again, it's natural. It tends to use the body's own capacity for healing extends and advances and increases the body's own capacity for healing, using basically electromagnetic or electromotive forces in the body.

It's available for home use. That was you can get a system, you can use it at home. And not only when you get a system for for home use, not only can you use it in the home setting, but your other family members, including, pets, can use it to is completely complementary with other therapies, and there's a lot of scientific evidence about it.

This is not true for a lot of other therapies. They don't have a large body of evidence. There are tens of thousands of articles about PMS and studies and research about magnetic fields, and their effects on, on biology.

Let's start off with a case study. I want to show you an example of how, incredible emfs can be to help, heal the body. This is a little girl who's 33 years old who tore off the end of her thumb in a doorjamb.

Sharp doorjamb. You can see the suture marks here. And they reattached the end of the thumb that she tore off. This is the nail. So fortunately it was behind me.

Beyond the joint, the first joint. So when they reattach it, clearly there's no blood supply, which is what you'd expect. So that happened July 12th, 2012, when using EMF therapy for an hour and a half to an hour to an hour and a half every single day, three and a half weeks later, you could see a little scab, basically, of what was left of that, at the end of that thumb.

And of course, a lot of the other tissue is dying off and being replaced by new tissue. But you can see now it's attached on its own. Sutures are long gone at six weeks, there's a little tuft of a scab left, and you can see that the tissue is pink and is completely attached to the rest of the thumb.

At 12 weeks, she's actually regrowing her. Now, we would completely expect the nail to be lost. Which which was in this picture here. So this is, in a sense a miraculous example of what PMS can do and the healing power of pumps.

Now, they could do this with a thumb. What can they do deep into the body? I had a patient who was 60 years old and had gangrenous legs. His legs were black and blue from purple from the knees down.

And the surgeons were advising that he have amputations of both legs. So I started him on a nutritional program on supplements, started on magnetic therapy, got them to stop smoking, and literally within three months he went back to a surgeon who said, oh, I guess we don't need to amputate.

So this is these are good examples of the power of PMA therapy.

Research Evidence and Case Studies

And of course, in my book Power Tools for health, there are numerous research studies. There are over 500 references talking about how PMS could help, with, different health conditions.

This is just a sample slide. Not using the best PMS systems, the most charged PMF systems, but it gives you some example of what happens over a period of time, in this case over a period of six weeks.

So green is relieved, blue is improved and yellow is unchanged. So in the first week, of course, you're not going to see a whole lot of change with with treatment.

And this is basically treatment. Every single day in week two you have, an improvement in let's go back. I'm sorry. In week two you have a significant improvement, a relief.

Still a lot of, unchanged, and no change in the body at week three. Now you have 81% change in terms of improvement or relief, and then the degree of relief basically stabilizes.

And then you continue to see changes in improvement so that by week four you have 94% improved or relieved. Mostly this relates to musculoskeletal problems like aches and pains and arthritis etc..

And week five it's like 98%. And then at week six not a whole lot change 99%. So by by about week four you've got at least 94%, 95% of proven. So in 3 to 4 weeks you have significant levels of improvement of the just the, health problems and the pain that people had.

So many health conditions are related to or cause pain. So lots of other conditions that contribute to the pain problem. They may not be the direct cause, but they contribute to it.

So if you don't take care of the other conditions, you're not going to get that far with pain relief itself. So treating the pain with narcotic or pain painkillers alone is not enough.

You have to deal with the whole person basically. So the treatment objective is not only to help the pain itself, but also any related conditions to get the maximum results or benefits, you want to solve as many problems as possible with one solution if you can, as often as you can with one solution, and Pmfs can do that. But I'm not going to go into all of these basic actions.

They are covered in the book Power Tools for health. But there are at least 25 actions that I that I discuss in the book. There are more than that, but there I discuss 25 and provide the scientific evidence for these different components of the actions of Pmfs in the body.

So there's a wide range of ways that pmfs actually help the body to heal. And in the book as well, I cover at least 50 health conditions where I provide the scientific backing for the treatment of those conditions.

Using Pmfs. Again, I we don't have the time to go into all these and, you can go back and watch the video, just pause it at this slide to see all the different conditions that, that you can access.

Of course I recommend getting the book because then you'd have, you could do it, read it at your leisure. Now, who am I? I'm a former family physician.

Now, I'm doing holistic and functional medicine in the Baltimore area. I'm trained in acupuncture through a UCLA, program for physicians. But I've also had extra training in functional medicine, nutrition, homeopathy, herbal therapies, energy medicine, healing, color therapy, sound therapy, and hypnosis.

I don't use a lot of those, but I'm certainly very familiar with them in terms of what, what I can do in the practice. I don't have a big clinic, but there are many clinics and programs that have, combinations of these therapies in them, providing a holistic or functional medicine.

Now, I've been working with magnetic field therapies for about 30 years. I'm the author of two books, Power Tools for health, which I discussed already, and Magnetic Therapy in Eastern Europe, a review of 30 Years of research.

So I stumbled on an, researcher in from the Czech Republic who had reviewed a lot of the Eastern European

literature that was written largely in, like, Russian or Cyrillic languages.

So it was not available in the West. He had translated a lot of that research, and we put it into a book called Magnetic Therapy and Eastern. You. I've also done numerous radio, interviews, TV interviews, podcast interviews, print interviews, and written or contributed to multiple chapters in books.

I have two authoritative websites, Doc Polycom and PMF Training academy.com. We're going to be starting a whole program to be able to do training to clinicians and people who are health coaches and, also want to provide health services to people through this PMF training academy.

This will be built out over the years. So please have patients with us. So I've been doing conventional medicine for a long, long time. In 1985, I almost had two patients die from gastric bleeding caused by ibuprofen.

So I knew there had to be alternative ways of helping with pain. But they weren't not there were just not available to most doctors. So I went outside the medical establishment and learned acupuncture.

Completely unique. Different way of thinking. Strange for a doctor, to learn that kind of discipline. When I started my training in 1989. There are only about 300 physicians in the, in the US that were doing acupuncture.

Now they're over 3000. So when I finished, in 1980, people were refusing acupuncture. So I started looking for alternatives to using needles and found magnets are being used in the Orient extensively.

And I started to use acquired them. I started using it. So I used magnetic pellets, necklaces, shoe inserts, magnetic pads and so on. But I found basically that they didn't work well enough.

It didn't work deep enough into the body. They didn't work well enough for the most part.

How PMF Supports Healing and ATP

Hard to actually keep on on the body as well. So I but I dug into the science of magnetic fields and how they could possibly be used to help the body, and that's where eventually I ended up writing the book, magnetic Therapy in Eastern Europe and then began to work with magnetic fields, pulsed magnetic fields that became available from from Europe.

And having worked with those for another, 15 years or so, published the book Power Tools for Health. The website Doctor Polycom has was initiated in about 2013.

So it's been around for quite a while as well. Now, have you studied functional medicine and doing all these other things? I decided that I was going to do a lot more work with magnetic field therapies.

So remember now I said that pmfs are a form of natural medicine. The principles of natural medicine are that they harness the healing power of nature.

They help to treat the cause or source of the pain signal, and they do no harm. So always as you're trained as a physician, first of all, do no harm, certainly to the extent that you possibly can.

And of course, we really should be treating the whole person magnetic therapies on one component of a comprehensive or holistic approach to dealing with with health and helping people deal with their pain.

The ultimate goal of natural medicine is optimization of health. First of all, we want to get rid of, identify and address anything where there's insufficiency in the body, where the body is lacking, something to be able to do, the job that it needs to do to heal itself.

But once you've reached sufficiency, you have to maintain what you're doing against entropy. Optimization, then, is to continue to add strategies to gain ground on entropy.

So even though you're sufficient now, you're not going to be sufficient for long because of entropy. So what is entropy? These are the classical definitions of it is a thermodynamic quantity representing the unavailability of a system's thermal energy for conversion into work, often interpreted as a degree of disorder randomness in the system.

Basically, it's a lack of water or predictability. It's a gradual decline into disorder. So you're an order today, but if you don't do anything, you're going to be in some degree of disorder tomorrow.

And the days after that. So all by logic or, systems or organized systems are subject to various degrees of entropy. Entropy is inevitable in organized systems.

And it logarithmically accelerates with aging. So aging is accelerating. Entropy the ultimate goal, again, of what we're trying to do in health in general is to optimize.

We add strategies to gain ground on entropy without further depleting the resources of the body or further accelerating aging. So some of the treatments that we do in medicine, for example, surgery actually accelerates aging because it puts a big demand and a stress on the body.

So again, we're trying to undo entropy. We're trying to undo aging and trying to slow that process down, accelerating that natural healing of the body towards optimization.

ATP is an important part of the energy, needs of the body. So one of the most important goals we have is to keep up the energy in any system, any tissue system, any cell, any organ, and keeping up the energy and the system means that you have to have sufficient ATP.

The majority of ATP is recycled from ADP, adenosine diphosphate and back again. So ATP removes one molecule of phosphate which then becomes ADP. And then it's recycled back and forth continuously.

So at any given time, the total amount of ATP at ADP remains pretty constant. The energy used by human cells requires the breakdown of 100 to 150 moles, a chemical term of ATP daily, which is about 50 to 70 kilos of ATP production per day.

A human will typically use up his or her body weight of ATP over a day. Each ATP molecule is recycled about 500 to 750 times during a day. Now, obviously we don't gain 50 to 70, 50 to 75 kilos in a day.

It's like that because it's constantly turning over. So basically we're in dynamic balance. Hopefully with the ATP that we need and that we produce. So pmfs produce, maintain and restore ATP, keeping the cycle going optimally.

But one study found that even 20 minutes of PMF therapy increases ATP by an average of 100%, or even up to 600% more ATP production at during the time of stimulation.

Now, the ATP produced is going to be used by the body so that production, it does not happen. Does not carry you for hours and days at a time. So you need to recurrently stimulate the tissues to keep the ATP production up.

Now, relating to this idea that pmfs help with aging, they help with repair and so on. Just to give you a sense, a magnetic field therapy does not stand alone.

You can't build a house without bricks and mortar. You can't build a house without having workers plans and tools. And if you have hand tools, the job is going to go slower.

If you use power tools, you need power. And basically the power tools for health is the name of the book for, magnetic field therapies or pmfs. So they provide the power to the project.

They provide the power to the tissue, to the body to do the job and to repair and to maintain. So to maintain and repair in the body, you need nutrients, cells that are working.

You need genetics that's working. You need the fuel and energy like ATP and nutrients. And you have to have some stimulation, some kind of stimulation for the energy that can be provided internally, which leaves things to chat.

Or you could provide it with stimulation, which optimizes the chance, decreases the risk of chance, and breakdown. And you're again, you end up with decreased aging and increased healing.

So how do Pmfs work? The basic magnetic field effects of maps are and these are these basic effects are happening constantly all the time depending on what the body needs at any given moment.

You and I don't decide with the magnetic field we choose whether one of these particular components is going to happen. The body is going to use what it needs and is going to do what it wants to do, and some things are going to happen faster than others.

So opening blood vessels is clearly increasing circulation. All pumps, all emfs, all magnets improve circulation. Nobody can make a claim that their particular magnetic system does that better than any other one.

It reduces swelling and tissue. It's anti-inflammatory. It has a natural painkilling action. Some people have claimed that it makes, it's equivalent to about ten milligrams of morphine. An actual painkilling action.

It's not a panacea. It doesn't happen to everybody. It doesn't happen all the time. But it has that natural, distinct, painkilling action. Often people feel that happening right away relaxes muscles, accelerates healing.

We already talked about that dominant child natural anticoagulant actions. So decreases the stickiness of blood. Helps with all the the, clumping of red blood cells that you see how many presentations of PMF effects.

So all pmfs do that. They decrease that clumping, it reduces bruising rapidly. One of my first experiences was the reduction of bruising overnight. Somebody the bruising was gone.

I learned this about PMS. I started using magnetic fields and in replacement for acupuncture. And it absolutely, stimulates acupuncture points and meridians.

So every time you do magnetic field therapy, especially with the whole body magnetic therapy system, you are doing acupuncture at the same time, not with needles, but you're still doing acupuncture.

In fact, I teach courses to acupuncturists on how magnetic field therapy augments their use of acupuncture. So very key aspect of magnetic therapy, which is acupuncture.

And then a whole process called entrainment. When you're doing frequencies, you're causing the body to be able to run itself or oscillate or vibrate. It's itself at the, frequencies of the magnetic fields that are given to it.

So those actions of magnetic fields are critical to understanding what we're are going to do in the body. You're relying on all of those actions to be, effective and be in place when you're doing magnetic field therapy.

And again, you don't have to decide what to do. The body will will decide what to do, and we'll talk about what you need to do, what you need to do to make sure that all this happens properly.

One of the other things that pmfs do, which is actually not in that Eastern European research, more recent research indicates that P of S can increase stem cells that can be about a 400% increase in neural stem cells, which are the hardest stem cells to grow.

In other words, nerve type stem cells that includes brain and nervous system.

Mechanisms of Action and Field Physics

And about 150 growth factors are also stimulated at the time when you do the magnetic field stimulation to grow stem cells. 150 growth factors. That's why healing happens.

Magnetic fields produce those growth factors in the body. They cause the body to produce them to accelerate the healing process. Now, any PMF action applied locally here, if you apply to arrest a hand or arm, it's going to the benefits are going to spread or the actions are going to spread to other parts of the body.

They're just going to be weaker at other parts of the body. I have seen magnets improve the circulation in a hand just by putting a magnet in the hand, and when you look at the opposite hand, that will also tend to increase circulation.

Not as much, but it does as well at even the foot. If you look at the back of the foot, you'll see that that's gotten slightly warmer and also has more pink, has more circulation, so they act throughout the body even though you're playing it locally.

And again, the best action is going to happen where you have the problem applying the magnetic field, where you have the problem. I use something called the cell injury model to describe what magnetic field therapy does.

Not too many people talk about this. It's critical to understand that magnetic field therapy, works to help the cell, to replace itself, to heal itself, to recover itself from injury.

Injury is anything that causes the cell to be out of balance. It could be trauma, it could be heat, it could be radiation, it could be infection, it could be, toxicities, it could be audio immune.

Whatever causes the cell to be out of balance and in quotes, injured. That causes the cell not to work properly. The more the cell becomes injured, then you gradually lose cell function until finally get to a point where you have irreversible injury.

So before that point, you have reversible injury. If you apply magnetic field therapy at this time during reversible cell injury, that's where you're going to have the best results for healing at the point of irreversible reversibility.

Once it's irreversible, then you begin to gradually see changes biochemically in the body. You begin to see changes at extremely high resolution microscopes, eventually under regular microscopes.

And then, eventually you're going to actually see it by the time you see it, the injuries long, long, long down the road. And the harder it is to recover, the longer will take to heal those tissues to go back to improve cell function.

So again, starting magnetic field therapy early in the process is critical. Unfortunately, most people start to use magnetic field therapy when they're way down in the air.

When they really know that there's a problem. Now these are the components. And I'm not going to go into these detail because we don't have that kind of time, but we have reductions in ATP production.

When you have cell injury, mitochondrial damage and the ATP is produced by the mitochondria and you have what we call apoptotic proteins, proteins that actually kill the cell, that cause the cell to die.

You have changes by changes in the amount of calcium going into the cell, which increases mitochondria permeability. The numbers of mitochondria become more open to nutrients, activate cellular enzymes.

And there's damage to, lipids and proteins and DNA by increased, oxidative stress. A reactive oxygen species injury. Also, it ends up causing membrane damage and leakage of, different components of the cell, out of the membrane.

A protein misfolding and again, leading to death of the cell. So magnetic field therapy helps with basically each one of these components. Research has shown that each one of these components of cell entry is impacted by the

emfs.

Now, how do Pmfs work again, in terms of all the changes they do, the actions they have in the body, what's the primary mechanism where there's charge or electrical conductivity, there's a magnetic field action wherever you have current flowing, wherever we have charge electrolytes flowing where we charge, you have magnetic magnetic fields.

That's a principle of physics. It's called Faraday's law. The two aspects, electro and magnetic, are inseparable. They're the hand in the glove, completely inseparable.

Our pmfs work deeper than, most other healing therapies because they go right through the body. The magnetic field penetrates the body with complete ease.

Nothing in the body stops the magnetic field. Not muscle, not brain, not blood, not tissue, not skin. Nothing in the body stops a magnetic field. So it goes completely through.

And it's doing that by virtue of the fact that magnetic fields are passing completely through as they pass through it, stimulate the tissues. When you have a current flowing through a wire, a shielded wire, you have an electrical component to that current.

And at the same time you're producing a magnetic field. It's called the right hand rule, right? You have a perpendicular magnetic field. Every time you spike an electrical field, you have a magnetic field.

So as a current is flowing through a wire, constantly producing this magnetic field. As a result of that current, the current is not touching the body.

It doesn't have to touch the body to do its job. So that's the beauty of magnetic fields. There's no risk of harm or damage like you can with electrical fields.

So again, the body is transparent to a low frequency or even a static, you know, standing magnetic field. Nothing in the body stops, slows or uses up a magnetic field must pass through the body as if it wasn't even there.

If you put a body in between a magnetic field and measure the magnetic field on the other side of that body, remove the body at the same place that body was or that you previously measured would be the magnetic field.

The tension will be the exact same. Will not be any different bodies do not stop or slow down or use up a magnetic field. So my analogy is that pmfs are like the wind in the trees.

You can't see it, but you know it's there by its action. In other words, the leaves start to move you. Then you know that there's wind in the trees. So in a sense, the wind is moving through the body.

It's causing motion. Causing action is in the tissues end up causing healing. And other benefits that you see from maps, including pain reduction. So Faraday's law intensity matters.

This is a key principle. Intensity matters. All intensities produce. All magnetic fields produce some benefits in the body, but for faster, more rapid, more durable, more a better healing.

Like the child with the finger. The finger is very close to the magnetic field, so it could work very well for a finger. But if you're working deeper in the body, then intensity is really very important.

Again, go back to Faraday's law. So time varying magnetic fields induce an electric field whose magnitude is proportional to its rate of change. So the change in the magnetic field D stands for change, B is the symbol for magnetic field intensity, and T is a symbol for time.

So DB divided by dt determines the amount of charge going that's going to be produced in the body. So this is a

graphic representation. This is time and this is magnetic field intensity.

So as the magnetic field goes up you're having a change in intensity. It goes from zero let's say to its maximum that's DB change in intensity. But this change never happens in a straight line up.

It always takes some time to be able to reach its peak from the base to the top. That's basic electronics, basic engineering and basic physics. So you divide the intensity by time to give you the DVD.

This is a sample of magnetic field from a system called in F1 20, which produces an extremely rapid rise in magnetic field up to about five Tesla 50,000 gauss.

And then it rapidly drops off. So but it oscillates down all the way from the top, from the peak down to back to its baseline. But this happens in microseconds, not milliseconds or seconds in microseconds.

Extremely rapid. This rise and drop that gives you very, very high details. This is a sample of a sine wave. Sine waves can be designed so sine waves typically are thought to produce very weak intensity magnetic fields.

But they can be designed to produce a very high data DVD as well because you can get a very rapid pulse, high intensity sine wave magnetic field. And we use magnetic devices that produce a pretty good DVD as well, even though it's sideways.

So there's no such thing as, a waveform being especially effective compared to other waveforms. It's really about the DVD of that particular waveform.

Now, again, magnetic fields interact with charge. Faraday's law. Now the charge is produced by ions in the body.

Choosing the Right PMF Device

And ions in the body are constantly in motion and they produce charge in the body is electrolyte soup. Think of the body in some ways as a battery, but it's an electrolyte soup.

It's complicated. It's not much more complicated than a simple battery, but pumps interact with natural charge that already is present in the body, and they increase the production of that charge in the body.

So the pumps interacting with the motion of ions induce and conduct charge. So they produce even more charge and even more conduction. All right. And that increase in charge is what causes the healing action of the body.

And many of the other physical actions and biologic actions that I already described. A body cannot be overcharged as can happen of electrical stimulation.

Average electrical stimulation is essentially a mild form of electrocution. PMS don't electrocute, they induce charge in the body because the bodies produce it, rather than you putting electrical charge into the body, which can hurt and harm.

So PBS cannot overcharge tissues. They can only produce as much charge as the body is capable of. There's another component to this that's very important in determining what magnetic field is to get.

But how to consider a magnetic field that's called the inverse square law. So the magnetic field drops off in intensity as most other forms of radiation do, like heat and sound and light and so on.

At the source of the, stimulus, the intensity is going to be the highest, and that drops off very rapidly. So if you start off with a 1000 gauss magnetic field one centimeter into the body or one centimeter away from it, you will have lost about 75% of the magnetic field.

So it started at 1000 gauss, which is 100 milli Tesla. All right. And then by the time it gets to one centimeter, it's 240

gauss or 24 milli Tesla. And then as you go further and further and further into the body, you lose almost all your magnetic field intensity.

It still goes on. It can go on for a very long distance, but it's dropped off and it's very, very weak. Again. When it's very weak, the DB is very low.

And that means that you have less effective. Recent research found that inflammation is influenced by emfs directly, and inflammation is influenced by in many ways.

But one of those ways is to stimulate the adenosine receptor that researchers discovered that the maximum changes to the inflammation to, the adenosine receptor happens with best at about 1.5 milli Tesla, which is about 15 gauss.

So you get increasing benefits up to about 15 gauss and then basically plateaus. After that, you have not much more benefit. So you get some benefit lower down on the curve, but it may take a lot longer to receive benefits.

And unless you have that optimal level, fortunately higher intensities don't harm they just wasted energy. So this is an important consideration in selecting a magnetic field.

And you have to think about what the depth of the tissue that you're trying to treat in terms of that optimal intensity. So what you do is you calculate you have to figure out how deep you want to go into the body, how deep you have to, treat into the body.

For example, a kidney is about four inches into the body. At least, so at four inches into the body in order to receive 1.5 milli Tesla at the organ, at the kidney, you're going to need a magnetic field intensity of about 1820 gauss or 182 milli Tesla.

So you need almost 2000 gauss of intensity to deliver 15 gauss deep into the body. And on my website, there's a blog about this that gives you this particular table.

So this this table I have calculated up to about eight inches of the body, where you need about 6000 gauss to deliver 1.5 milli Tesla or 15 gauss. Very important.

Now if you're being if you're talking to somebody or somebody is recommending a magnetic system for you, that's much lower than 15 gauss, you're not going to get much benefit because it's not going to do the healing work that you need.

Certainly in terms of reducing inflammation. Another aspect of considering magnetic fields and how they work in the body, and how you need to think about when is the magnetic field going to help me, is what I call the timeline for healing to think about.

Even though you have the optimum magnetic field, even though you might have the optimal, frequency or waveform, you still have to think about what the magnetic field is doing in the body and how long is it going to take to produce results for that purpose, you're going to have to think about two things levels of illness and the healing rates of tissues.

So the levels of illness are basically, what I call them in terms of levels, in terms of energetic stage, physiologic stage, past the physiologic stage and pathologic stage.

So almost all problems that you're going to experience, all kinds of illnesses and health issues, including cell injury, are going to be at one of these four levels at the energetic stage.

You're going to let me back up here at the energetic stage. That's like for example, with a cold, you feel tired and achy, you know, you don't know what's coming, but something's coming that the physiologic stage, you have a runny nose and sneezing at the passive physiologic stage, you're coughing and have phlegm at the pathologic

stage means damaged tissue damage, significant tissue damage, for example, pneumonia and abscesses.

Now, when you do stimulation of the body, those levels have to be taken into consideration and into account. So at the energetic stage, the results will be very rapid.

You can remove the problem energetically because the tissue now has the energy to fight the problem and heal itself as quickly as possible. At the physiologic stage, you can take 1 or 2 days of treatment to get rid of the problem, like a cold or flu.

At the passive physiologic stage, it could take days two weeks for treatment to work, and at the pathologic stage it may take weeks to years or maybe even never, depending on how much damage has been done.

So dead tissue is dead tissue. Pmfs don't raise the dead. So all of these stages are could be present. So you'll see different levels and degrees of changes as you start to do magnetic field therapy there.

And each stage will take its own time to, to reveal what it's doing for your body. And your body will determine what how much time it's going to take, how much intensity, and so on.

It's not necessarily instantaneous, as much as we hope so, but I'll give you an example for tissues that tissues heal at their own pace. That also determines to what extent you can heal.

So the cornea heals at 24 hours. Intestinal cells take 72 hours. Skin and muscle could take 2 to 4 weeks. Bone could take two or more years. Small nerves grow at the rate of two millimeters per day.

Large nerves about five millimeters a day. The brain may never heal completely. You can reduce inflammation. You can stimulate function and physiologic processes, but you may never be able to completely heal tissues that have a poor blood supply and have poor ability to grow new tissue, like stem cells, can take very long periods of time to heal if if ever.

So at the very least, what we can do is to do symptom management. But our goal ultimately is to do healing. So I mentioned the fact that PMS to stimulate stem cells.

And that's part of the healing response in trying to regenerate tissue to do healing work. Now, to get the best results, you're going to need the right equipment.

So I've gone through the different types of magnetic fields. I've gone through the intensities I've gone through, how they work in the body, the importance of Faraday's law and the, again, the damage has to be reversed and the time it's going to take to get that to happen.

So now you need the right equipment. So this is again what PD is all about. You can hear about pumps. You can learn about pumps. But unless you actually use them there's you're not going to see any benefit just by knowing.

So what you need to do eventually is to get yourself a pump system for your own healing work. So now that you see what pumps are, how they work, that intensity is critical for good results and how the body's going to respond.

What kinds of devices should you not consider? The answer typically is less than 15 gauss, almost for sure. Maybe not even less than 60 gauss. Again, 15 gauss is going to reduce inflammation very superficially, right at the tissue, right at the skin.

So an elbow joint will work at the at a tennis elbow. Carpal tunnel will be okay because you can go in maybe one centimeter and still get a significant amount of help.

But once you have to go deeper into a hip joint, into a shoulder joint, into the brain, into the back of the throat, into a spine, it's that muscles, deep muscles, etc.

you're going to need much higher intensity to do that. So all the solid organs are going to need much higher magnetic field therapy intensities to get the best results.

So many people are being marketed devices that are largely ineffective for healing. They may be helpful for health maintenance and some symptom reduction, but they're not going to be that helpful for for healing.

We always ask what the intensity level is of the pump system being marketed, to always ask what the intensity level of the system is, being that you're being marketed.

If the rep doesn't know, it's most likely to low. Also, there are many people who have high intensity systems that will not tell you what the intensity is because they don't know.

It's too hard to find out and too hard to measure. The biggest problem comes in from the low intensity systems, because the reps don't know and they don't really want to talk about it because it's, you know, it's less than $15.

So again, you may be very wary of a system that's going to be less than $15. People with the best devices know their intensity levels and openly reveal them.

I think that's critical. Again, as much as half as much as possible. Try to find that out. That's not the only consideration, but that's one of the most important considerations is the intensity.

So there's a huge amount of conflicting information and many confusing choices. Anybody who's looking at magnetic fields on the internet, and all the recommendations being made of the, ideas that are being presented, there's a lot of conflicting information, and everybody says that their machine is the best, which is, again, relatively true, but not completely true.

So it's not the end of the story for you. You have to find out what's going to work best for you. Remember, intensity matters. The other thing about, purchasing, a device is the value.

The value basically is the cost to the system. And the likely benefit you're going to get. So many people, unfortunately, make all their decisions around costs.

They do not make their decision about the other factors that we're going to talk about. The second. So now I don't have to consider the cost. But also again, relative to intensity, what is the benefit going to be and how long is it going to take to get the benefit.

But you want to know as much as possible that people have scientific evidence. There are very few manufacturers of systems that actually have evidence for their particular device, and if they have evidence, it's often very limited in what it actually tells you, whether it's going to be helpful for you or not, that there's lots of evidence about particular PMF systems and magnetic field intensities.

And in my book, Power Tools for health, we go into this for a lot of different conditions. What studies have been done?

Resources, Training, and Closing

What were the signals that were used? Other people make a lot of claims about waveforms, and that a particular waveform is the most important. The only purpose of a waveform is to give you deliver the magnetic field intensity.

The DVD that I already mentioned. So waveform is less important than the DVD or the the actual intensity that you end up delivering. And that as I mentioned, intensity matters.

So practical considerations is the system that you want to, if you're considering portable, how much space is it going to take? Do you have what kind of support you're going to get technical and professional support?

If it's just, a salesperson or it's just the engineer, that may not be enough to give you, you advice on what would be the best way to use your system?

What kind of warranty service are you going to get? What kind of financing is available, what kind of customer service is available? It's a it's a person that's basically a single person selling this.

And you can't have can't find anybody to talk to after you made your purchase. And that's gonna be a problem for you. You prefer to talk to somebody who has multiple device options.

Now, they're not going to just sell you a particular car, a particular model. You'd like to be able to talk to somebody who has multiple choices, multiple options.

So they're not beholden to a particular system, right? You put square pegs and round holes. Do they offer training? What kind of training are they giving you?

Are they only training you on their device, or are they giving you training? More about more practical considerations, including nutrition and supplements and other other ways to improve your health to get you, the farthest down the road in your healing.

And then the credibility, the credibility, the company, the credibility of the device. You know, what's being said on the internet about it. So to consider a device to think about a device or purchasing a device, consider intensity, the value, the size of the system, how long is it going to last?

How established is the manufacturer? How easy is it to use? It's really complicated, requires a computer and lots of programing. It's going to be difficult.

Do they have adequate customer service and they provide, adequate training and support. And then, as I said, clinical expertise, preferably somebody who has some clinical background and being able to advise you.

So if you're buying a PMF system, one of the things you could do for general advice, you can go to my website, Doctor Polycom, and we have a buyer's guide.

So it's buyers Guide doctor polka.com/buyers guide, forward slash PMF machines PMF dash machines. So you can come back to this, this slide to get this, web address.

We again, there's lots of discussion about how to pick up and, consider machines and equipment. Now, one of the most important things for you to consider is are you going to get a whole body system or a local system for whole body systems?

They typically have long and wide pad applicators that treat the whole body. Most of the time, whole body systems are used for health maintenance. Since the whole body needs health maintenance, all of us need whole body health maintenance every day.

But or it can be used to treat several local areas of the body at the same time. This is done more easily than taking a small applicator and putting it into multiple areas for multiple periods of time every single day.

Ultimately, it would save you time. Whole body mechanics systems are also especially important for things like chronic, Lyme disease, chronic fatigue syndrome, osteoporosis, or osteopenia, which is a whole skeleton problem.

Autoimmune disorders, vascular disorders, multiple skin disorders. All of this probably is done best with a whole body system. Again, intensity matters.

And then if there's a need for nighttime use, some whole body magnetic systems allow you the ability to be able to run them all night long. But again, intensity matters for local systems.

You have little applicators that can be put on local areas. Same thing with, more higher, a higher density system like the Tesla Feet plus the flex pulse again is a medium intensity system, and it can be used continuously for hours at a time or throughout the night.

And that's local. So you can treat under the head. You can treat an elbow or shoulder, a carpal tunnel, etc.. Very useful system which gives you the flexibility to use it for all sorts of things.

Now that you could treat hands, knees, elbows, feet, shoulders, part of the back, prostate, etc. the intensity is reasonable. It's 200 gauss to 300 gauss so it can penetrate reasonably deeply into the tissues.

But again, to treat a liver or to treat a heart, it may be a bit more limited. A higher intensity local system. Is one like the Tesla fit? There are others, but Tesla is very useful because it reaches a maximum intensity of close to 4000 gauss.

Now, many manufacturers of high intensity systems have abandoned whole body pads, so people are often disappointed. They want the higher intensity systems, but they don't have whole body.

And there are logistical problems. There are engineering problems associated with this. So most manufacturers with whole, high intensity systems don't provide whole body.

They provide half body pads which can be moved around. But, that makes again the treatment time more, complicated. And, less efficient now to order a PMF system.

And I listed a few of them on the buyer's guide, slide to order PMF system or for advice device recommendations, or for consultations, you can call (866) 455-7688.

Or you can go online to doctor polka.com/store. And you can take a look at all the different devices that we have a lot of specifications for the devices on that store.

And again, you can for people with complicated issues that don't really know what they want or what they should get to optimize the benefits, they could contact the 866 number or to set up a consultation.

There are financing options. People have different, possibilities. PayPal provides PayPal credit and also payment plans. Professionals have the opportunity for leasing.

If you have a license, if you're a licensed practitioner of any kind and you can lease, you can always go to lendingtree.com. They provide, terms for equipment.

And some people do go out and find themselves interest free credit cards. And those credit cards could be interest free for six months or a year or even a year and a half.

PayPal credit allows you to take six months to pay off your, your your loan from PayPal. So that's very handy as well. What are some of the resources for PMI therapy?

There are a couple of books. What is called Power Tools for health, how Magnetic Fields PDFs help you? This book has 25, basic mechanisms of action, with over 500 references that has many basic concepts of pmfs, and includes discussion of different devices that are available, how to look for PMI therapies to, systems, you know, etc..

So this is a good, solid introductory book for PMF therapies. Again, one of the most important aspects of this book is the fact that it has so many different, scientific references to support PMF therapy.

A more recent book is called The Supercharge Your Health with PMI therapy. This book is developed primarily to support the Power Tools for Health book by giving advice on how to treat over 80 different health conditions and about, 11 or more, pain conditions.

It also talks about selecting the right device, by condition. So for each of the conditions that you'll be given, recommendations for which devices would work best for those conditions.

In addition, we have Doctor Polycom and, my recommended sources are Doctor Qualcomm or new to PMF. Start here. Intensity matters. And this explains again the importance of intensity with PMF therapy and the primary, value of PMF therapy.

Is the intensity setting a healing timeline and having an understanding of how the body works and functions and how it's going to respond to PMA therapy based on your knowledge of what PMF therapy does and how it works.

That PMF is how they heal, how PMF therapy actually produces healing in the body, and then selecting a PMF system, again, discussions about the different types of PMF devices that are available and making a choice between local and whole body or combination.

And critically, the discussion about adenosine, receptors and the reduction of pain, by reducing inflammation. So the adenosine receptor is critical to this.

And we've had that discussion already about the necessity for the upper magnetic field intensity of about 15 gauss. And we also have the PMF training Academy, which is still in development to to a great extent.

There are some courses on there now. And the PMF Training Academy is for those who want extra training in the use of Pmfs. Most of these are going to be, professionals of different kinds, but including our health coach, health coaches, massage therapists, clinicians of various kinds as well.

And then we have the PMF Healing Summit, which is where this presentation is. So this will include a lot of interviews with people from different backgrounds, and how chemotherapy can be integrated into, those therapies.

So thank you very much for watching the presentation. I hope you got, a lot out of it. And, it will have met your needs to understand more about magnetic field therapy.

Enjoy the rest of your day, and I hope to be able to help you soon.