

JEFF: Well, I am so pleased to be here. This is a wonderful community of runners and Running Centers has done a wonderful job in bringing this together, and thank you Ralph for facilitating this process. I am here to help you. So, my main mission now is to make running, walking, whatever it is that you're primarily interested in, to the most fun aspect of any day that you do it.

But first, let me tell you a little bit about where I'm coming from, because some of the facts may surprise you. I have been running now for 63 years, and I've actually been coaching for 51 years. I must tell you a little true confession, when I started running 63 years ago as a very overweight 13-year-old that hated any form of exercise, because he was totally out of shape, I had no idea that I would ever get into doing any regular running, whatsoever.

But, because of a school requirement that boys had to go out for athletics after school, I fell in with a group of kids that were runners. They were funny, and the rest is history. I just enjoyed the opportunity to be out there with them. So, currently, when I started coaching, it was as a result of opening the very first running specialty store in the United States, it's called Phidippides, in 1973. It was really premature as a business opportunity, I have to admit.

So, I had to keep the doors open, which is also true today. I went out to do clinics in the community, to put on wonderful retreats in places like Carmel, California and Lake Tahoe. I also had training groups that started out of my store in 1973 and now we have 50 different cities where these are taking place.

But the reason that I really was passionate about this is that I knew that running and endurance walking changes people's lives for the better, and I wanted to invite others in or keep those running and walking who were already doing it, so that they could hopefully keep doing it until they were 100 years old, and that is my open mission for you today. If you have any questions, you can use the email function there.

RALPH: That would be the Slido function, that's the Slido thing.

JEFF: Yes. So, I will have several periods where I'll take a little break for questions. Now my program has been based upon the feedback of over half a million runners that I gave advice to, and they got back to me, they told me how the advice worked. So, over the last 51 years that I've been coaching I have finetuned my training program based on that. I'll tell you what I've come up with.

In any given area we have a series of cognitive tools that allow you to gain control over aches and pains, over your goals, over how you feel on every single run, and often times your success. By using these cognitive tools you will be able to activate your human brain that overrides the ancient brain. The ancient brain

is the one that we get into trouble with when we use it in running, and most runners actually use their ancient brain, their monkey brain, when they run.

And as the stress builds up during a run, what happens is the ancient brain starts secreting negative hormones. This is why you can go from feeling really motivated at the beginning of a run to feeling so-so at mile #2 or 3, and then by mile #5 you want to quit. By simple use of some of these tools, you will activate the human brain that overrides the ancient brain, and it stops the flow of those negative hormones. Currently, I run and walk for an average of over 20,000 steps a day, when it is possible, my wife and I run a marathon every month, I now have done 236 marathons, and I've been injury-free for 43 years.

So, here are the benefits of the Galloway Method. First of all, you have control over motivation, over injury risk, over fatigue, and you also can run faster times, believe it or not. Even as people get older, once they shift to some of my methods, like run-walk-run, there's a performance benefit that comes on.

So, yes, it is possible to manage or eliminate aches, pains, and injuries. Endurance exercise delivers a certain quality of life at any age. You have an enhanced cardiovascular system, enhanced bone structure, you maintain physiological benefits year after year at a high level. The message is that life can be enjoyed past 100 years at a high quality level with endurance fitness.

The other thing that is important for people is that there are many positive brain benefits that occur when people do endurance exercise, particularly running. You turn on circuits in the brain for a better attitude, for more vitality and for personal empowerment.

And for those who are experiencing a little brain fog, distance running, particularly, will stimulate the new growth of brain cells, hundreds of thousands of new brain cells every week if you run more than half an hour three days a week. So, you've got a lot to look forward to and you're going to be more mentally sharp than people your age. It's amazing how sharp the 80, 85, and 90-year-olds are, compared with average people their age.

Okay, so the summary is that endurance running or walking keeps everything working at a high level - body, mind and spirit. So, the way that you activate your human brain so that you will stay in control over this, is to have cognitive tools that you use whenever you embark upon any given task. Particularly, since this clinic is on running and endurance walking, focusing on what you're doing. The reference for this section is my book Mental Training, and we have all of my books, I now have written 32 books, and they can be purchased autographed at jeffgalloway.com.

The key ingredients in training, whether you're doing endurance walking or running is three days a week, first. You need to have regular exercise to maintain the adaptations that you worked so hard to produce. Having a balance of running and walking can deliver all the benefits without breaking down.

Another way of putting that, the main cause of injury is running nonstop for too long for the individual. The main cause in people hitting the wall in endurance events is that they ran nonstop for too long. What run-walk-run does is allow you adequate recovery between workouts so that the individual can repair any damage and can allow the muscles to rebound so that they're ready to go for the next run.

Now, if there is aggravation, there are adjustments, and I'll tell you about how run-walk-run is used. Here's how the body adapts to training at any age, whether you're an endurance walker, a fun runner, or a runner who wants to improve their time. Basically our ancestors, they designed us to adapt and learn from our experience. We evolved to be long distance walkers, according to the anthropologists. It is believed by anthropologists that our ancestors regularly covered 5,000-10,000 miles every 18 months.

When we run and walk for long distances, dozens of key body systems are activated to keep adapting so that your feet, your legs, and the tendons and the mitochondria inside the muscle cells, all these things are adapting to make you better, or at least maintain what you've got.

The reference here is Galloway's Book on Running, the third edition just came out, I'm very proud of that. Galloway's Book on Running has been the long-term bestseller among training books, but the last 15 years there have been a lot of new things that I developed that weren't in the existing edition, so I went through the last two years and put those new things in there, and I'm very proud of the third edition.

And again, if you would like an autographed copy, just go to jeffgalloway.com at the e-store. The improvement formula is to start at your current fitness level, to gradually increase, and have recovery the key workouts for rebuilding. Recovery is as important as the hard training, because it's actually during the recovery period that your body repairs and makes the adaptations to improve you.

On the other side of that, if you don't have the period for that repair, then you can move into injury and recovery doesn't mean completely a day off from no exercise, you don't have to lie on the couch and eat bonbons, in other words, to recover. You can walk, and often times do some cross training, and some particularly elite athletes can run slowly on their off days, their off hard days, and have no problem with that.

So, the body is programmed to improve when you push a little bit beyond what your current level of activity was and the body is programmed to heal itself when there is slight damage. A slight aggravation to key orthopedic units actually stimulates rebuilding stronger and making you more efficient.

Here's an example; tightness from distance running actually has been shown to reduce injury risk. And so one of my guidelines for staying injury-free is to avoid stretching. I'll get into that a little bit later. But, stretching has never been shown to have any benefit in any studies to distance runners and has also been shown to cause injuries in sad cases, in injuries from stretching. So, I am going to absolve you my children from all guilt for not stretching before, after or during a run.

Okay, one more little section here, and then we're going to open it up to any questions for this section. Regular workouts in the key areas help you improve; endurance, speed, if you want speed, running form, mental training, and all of that according to your own personal goals. The workouts are set up to gradually increase toward what your goal is, pushing ahead a little bit, followed by recovery and rebuilding. So, the summary for this is that recovery is as important as the improvement workout. Recovery doesn't necessarily mean total rest, and the best method to avoid injury is to use my run-walk-run method, which I will be talking about.

Finally, I will also be talking about the magic mile in just a couple minutes, and that allows you to set a realistic pace. It's a cognitive tool that keeps you in control over your goals and what a realistic pace would be for a long run and your other workouts. So, I'm going to have a brief pause here, so let me know, Ralph or Susan.

RALPH: Yeah, so we do have a number of questions queued up in the Slido. For those who are not on, or if you are on the Slido, you can actually give thumbs up on other people's questions. So, the one that has risen to the top of the list is, "How much of our exercise time should we devote to strength training as we age?" That would be the first question for you, Jeff. You can probably see them on the screen there now.

JEFF: Strength training is an individual issue. There is one area of strength training that I think is very important as we become more mature, and that is strengthening the postural muscles, so that you not only will stay more upright when you're running, but just in life, itself.

I actually have one exercise that has been extremely beneficial for my clients. It's called arm running, in which you are very slowly bringing up a handheld weight to about eye level from waist level and then you hold it for 6 seconds, and then you very gradually bring it back down, centerline to your waist area, and you

only need 2 or 3 of these reps with each hand to strengthen those in the upright position. It's a very effective exercise.

But other than that, strength training has generally not been shown to be of benefit for distance running if you strengthen the legs, and as you get older, you can actually wear out the leg muscles if you work too hard in strength training. But there are a lot of individual issues where people find that they need some extra strength in various parts of their body, so that should be prescribed by someone who knows how to help you with that. But, generally speaking, there is not a lot of strength exercise across the board for distance running.

RALPH: I'll chime in on the back of that. One of the previous Zoom open hours we did was with the pain-free method which deals exactly with posture, in fact the website is Postural Solutions. That was very well received at a Zoom open hour we did I think was last October, or no, it was early January, and that's on our website.

Which, by the way, the replay, which is one of the questions down here, we will get a replay of this up, and when we do have that replay ready to go we will send out an email so everybody can get a copy of it. We have some regulatory issues we have to deal with anytime we put something on our website for the public, but we will endeavor to get that one out and up as soon as possible. So, Jeff, the next question is, "Should we be using gels in training?" I've read that taking gels during training, replenishing glycogen, the body isn't learning to burn fat effectively. Can you address that?

JEFF: That's absolutely not true, and it really doesn't have any connection whatsoever. There's a whole lot of really bad information on the internet, I'm sad to say. Here's the deal with taking sugar products during runs, and I'm talking about long runs. Any run that is at least 90 minutes, it's beneficial to keep your blood sugar level propped up, but you don't need much blood sugar to do that.

But the process of blood sugar is based on the fact, of replenishing blood sugar, is that you will use some of it up when you run or walk long distances, and your brain's only fuel supply is blood glucose. So, you're actually messing with your brain, and that's why you can really have some mental fog at the end of long runs if you aren't propping up your blood sugar level well enough.

Once the blood sugar level starts going down, your brain starts shutting things down and causing cramps and causing more things to hurt, making you feel absolutely miserable with negative hormones. You can really manage this by using my rule of thumb on blood sugar and water replenishment during long runs. My rule of thumb on that is every 2 miles, ingest 2-4 ounces of water and also ingest 30-40 calories of sugar.

And so the 30-40 calories is not very much every 2 miles, but it has been enough for most people to keep the blood sugar level up there, but you do need to do that every 2 miles. Unfortunately, with gels and goos, there is a high amount of nausea with those, because they have a whole lot of products in there other than sugar, and those things are hard to digest, and cause nausea, and I have a no-puking rule in my coaching, so I'm against the nausea produced there.

But if you do keep your blood sugar level up there, you're going to feel more motivated, you're going to be able to keep away from those negative hormones towards the end, to avoid that blood sugar crash that could occur. Got another question, Ralph?

RALPH: Yeah, so the next question, "Can you please talk about proper form when running hills? I have a tendency to go onto my toes uphill."

JEFF: Yeah, well, let me just talk about running form in general. The principles of good running form as evidenced by the research over the last 75 years, are upright body posture, feet low to the ground, and a light touch of the foot, and manage the stride so that you're not over-striding. Now, when going uphill, the other caveat is to shorten your stride as you go up the hill. It's generally not a good idea to lean too far forward, because you will reduce your ankles' ability to do work towards the top.

And then, when you go down the hill, you want to keep your feet low to the ground, you want to have a light touch of the foot, and you don't want to let the stride get too long. It certainly can be longer than going up the hill, but if you let that stride length get too long, you'll pound your feet, you'll overextend your hamstrings, and you can really cause muscle pulls and aches and pains from that. So, be careful with that.

RALPH: Great. Another question, anonymous, "Hi Jeff, during the walking part of the workout, should we walk at a brisk pace or leisurely pace?"

JEFF: You know, I'm going to get right into run-walk-run in a minute or so when we get through with these questions, but the walking pace first needs to allow you to recover from the run segment, so that's the first mission. The second mission is whether you're in a race or training run, the one no-no with walking is you don't want to have too long a stride length, because that can cause injury.

So, you want to keep your stride length very gentle. And if you want to pick up the pace of your walk, you can do cadence drills for walking just as I recommend, and I'll mention this, cadence drills for running. There are two drills that you will find on my website that help people improve their form. One of them is the cadence drill, and other one is called the transitional glider, which teaches you

how to transition seamlessly from a walk to a run and then seamlessly back into another walk, over and over again.

RALPH: I see, so the next question is, “You talked about the 30-40 calories every 2 miles. How would you recommend we get that?”

JEFF: The forms of simple sugar have been easier to digest and get into the system quicker, so that the brain gets its fuel quicker. What I’m talking about is sugar cubes, gummy bears, lifesavers, or you can do what I use and that is de-fizzed Coca-Cola which by the way is used by a lot of world class athletes. I started using it when I was at the world class level back in the 70s, and de-fizzed Coke is still used by a lot of world class runners, because it’s sugar water and it has the added benefit of having some caffeine in there, too. But if you’re going to use, whatever you’re going to use in a race, you want to try it out many times on long runs before you choose to use it in a race.

RALPH: I’ve been a Gatorade guy for so long, that going back to Coke would be a killer.

JEFF: I think it’s a good lesson, actually, because electrolytes are also very hard to digest during a long run and they do cause a lot of nausea. And the electrolytes that are in sports drink can’t be digested, metabolized and then be used during that long run or race, so they’re really of no benefit. They may help you in recovery, but drinking electrolytes after the run would do the same thing. Just realize, if you are having nausea issues, it could be the electrolyte beverages.

RALPH: That’s good to know, that I had never heard, so I appreciate that. “Benefits to stretching with other types of workouts?” “Is there benefits to stretching with other types of workouts?”

JEFF: The only people that I see benefitting are individual issues, mostly people that had some type of injury, car accident, football, skiing, and they had to work around those things. Stretching is used by the ballistic sports, football, sprinting, basketball, because those sports, you’re asking your body to do what it wasn’t designed to do, so clearly stretching can help you in those sports, but there’s also a risk of injury in those sports, too, but there is some benefit to be accomplished there. In distance running there is no benefit from stretching for most people and there is a high amount of risk. So, there it is.

RALPH: We have two more questions and then we’ll take it back to your planned conversation. I think you kind of already addressed, “What are some suggestions to such things to eat, snack on every 2 miles?” I think you’ve kind of already addressed that one.

JEFF: Yes, sugar cubes, gummy bears, lifesavers, de-fizzed cola, yeah.

RALPH: Okay, and then, “What about getting back to running if you switched to cycling because your knees hurt so bad?”

JEFF: Well, first of all, I have brought a lot of people back from that type of situation, who had switched to other sports or had simply dropped out of running because they were getting knee pain when they ran. That is most commonly caused by running too far nonstop. So, listen to my run-walk-run section that’s about to start right now.

RALPH: Okay, sounds good. Rose, we want to go to live screen. We’ll pick up this last question and any new questions, Jeff has got some time set aside for another Q&A session later on, so we’ll get back to those questions, otherwise we’ll never hear the rest of his presentation.

JEFF: Absolutely, and I’m so pleased that we have so many questions, and I’m going to give you a bonus for being here today. You can ask me questions via email, my direct email address is jfg@jeffgalloway.com and I’d be glad to help you with any lingering questions that I haven’t answered during this presentation.

The best way to avoid injuries that I have found in my 51 years of coaching, 63 years of running, is the run-walk-run method. The bottom line on that is according to the anthropologists, they didn’t design us to run nonstop for any distance at all. They used run-walk-run on hunts and other periods when they had to go a little faster on some of their migrations, but the bottom line is we were not designed, according to the anthropologists, for nonstop running, and when we try to do that, we overload the feet, the legs, the tendons, the ligaments and muscles, and we cause injuries.

So, the way we avoid these is you adjust your run-walk-run strategy so that the running amount is not too long for your pace and what you’re doing, and then you have frequent walk breaks to reset the fatigue level and you also will reset the stress buildup on your weak links. All of us have weak links and they’re going to get irritated in running if you run too far nonstop. But by breaking the cycle of running a little bit and walking, running a little bit and walking, if you fine tune that, you’re going to be able to reduce or eliminate the stress buildup on those weak links and make them manageable.

So, here is how this works. The recommendations are based on pace per mile. And again, we now have over 500,000 people in our database who had problems with various things in running and run-walk-run was part of the answer in getting them injury-free. So, the database from that is based on collecting what pace per mile they were running and then overall with the volume of people, what was the best run-walk-run strategy by pace per mile.

So, here they are, folks. At a 7 minute per mile pace it's run 6 minutes and walk 30 seconds. At 8 minutes per mile it's run 4 minutes and walk 30 seconds. At 9 minutes per mile it's run 2 minutes and walk 30 seconds. And I say 30 seconds, because our studies show very clearly that the maximum length of a walk rate for benefit occurs within the first 30 seconds. If you walk longer than that, you actually start slowing down during the second half of your run and it becomes harder and harder to restart again.

Moving forward, at 10 minutes per mile, 90 seconds run and 30 seconds walk. At 11 and 12 minutes per mile, either 60/30 or 45/30, or even 30/30, for 11 and 12 minutes per mile. At 13 and 14 minutes per mile, it's either 30 seconds/30 seconds, 20 seconds/20 seconds, or 15/15. At 15 minutes per mile, it's run 15 seconds and walk 30. And then at 16 minutes per mile, which is the run Disney Balloon Lady pace, it's run 10 seconds and walk 30.

So, by trying those out, again, as a trial run, as a rule of thumb, and then trying out one day a week a series of the strategies that are in the pace range that you want to be running in your next race or some particular run that you want to do. What I recommend is on a Tuesday you would have some half mile repetitions running at the race pace that you want to run in your goal race at the end of the season.

And on each one, doing 4-8 of these half miles, you try a different run-walk-run strategy. By doing 4 to 8 of those every single week, you're going to come up with ones that simply work a whole lot better, and you will also become very accomplished at using that strategy that works well. So, that's how you can facilitate that during a training program.

Now, the Magic Mile. This is a very important part of my program. It's a cognitive tool and it's really designed to give you a reality check on what paces you should be running. The magic mile is a one mile time trial, it is run several times throughout a training season to see how your progress is going, and then also to make sure that you're running slow enough on long runs.

And then at the end of the season it can tell you whether you're really ready for that time goal that you wanted to be ready for. The magic mile, then is done, first of all, by warming up and going through the cadence drill and acceleration glider drill to get the legs ready to run one mile at a little faster pace. The first magic mile of the season, you're not trying to run fast, you just want to get a reference time.

So, once you get that reference time on the first one, each successive magic mile would have a goal of running faster than you've run before. Almost everybody in our Galloway programs finds that they run faster progressively through the season.

Now, the data that we have is quite large in being able to predict what your current potential is. And all you have to do, to do that, is to go to my website, jeffgalloway.com, it has a free computation function there. So, you can plug in your magic mile time, and it will tell you what your current potential is in the 5K, 10K, half and full marathon, and it will tell you what your pace should be no faster than, in long runs. And that the first thing that we want to do, make sure that we're not running too fast on long runs.

Magic mile can really help do that. Just go to my website and it can really help you through that. It's a cognitive tool, meaning that you have to interact with this in cognitive steps, which activates your human brain then gets you away from allowing the ancient brain and the ego to determine what your goal is when you don't have a prayer of being able to run that goal. So, the magic mile is extremely important and feel free to use our free computation on our website.

But, in order to achieve the time goal that is predicted by the magic mile, you will have to do all the training that is in my training programs, the 5K 10K book, the Half Marathon book, Galloway's Book on Running, or Year Round Plan book, all the schedules are there and you not only have to do the long runs that get up beyond race distance, but also have to do some speed work, for example in the half marathon you would do half mile repetitions on alternate weekends with long runs. So, here's how that works.

To prepare yourself for your very best performance in a half marathon, you need to get up beyond 13.1 miles in training runs. So, whatever your starting distance is, it should be just a little bit longer than your current longest run and you would gradually, every two weeks, build up the length of a longer run so that two weeks before your half marathon you're up to 14 miles if you want to finish the half marathon with strength.

And if you want a time goal, you can go all the way up to 19 miles to get extra endurance benefit. And the difference between a 14-miler and a 19-miler is 7 additional minutes of time improvement on the average. And the difference between a 10-mile to finish, 10-mile longest long run and a 14-mile long longest run is another 7 minutes of time improvement, so there's a lot of time improvement you can achieve just from lengthening the very slow long runs.

Now, what you will see in the magic mile computation is that we have found that you really need to slow down the long runs, but the reality is I haven't found any pace that's too slow for long runs. I've actually trained quite a few people, several thousand people, who have only walked the long runs in preparation for the half marathon or marathon, and they got all the endurance of the walk that they would have gotten from the run.

So, go slow and you should be running at least 2 minutes per mile slower than you can currently run in a marathon. But the computation function at jeffgalloway.com under the magic mile will tell you how to do that. On the long runs, be sure that you're using the right run-walk-run strategy, but again, by default, you can walk as much as you want to, and having more gentle run-walk-run is going to give you all the endurance without the risks of injury or prolonged fatigue that stays with you in a lingering way for several days or several weeks, in some cases. Okay, any questions right now?

RALPH: Yeah, we do have a couple questions, we'll pull them up on the screen, Jeff. We'll start with one that has been up here for a while, it was put up just before we went back into presentation. "Can you suggest healthy breathing techniques?"

JEFF: Yes, there is a method that's called lower lung breathing, some call it belly breathing, and that is opposed to the other way of breathing people get into, is shallow, upper lung breathing in which you're panting. The difference is that when in inhale, where you're taking in a breath with lower lung breathing, you want to send that air down lower, into the lower lung area, and you may have to practice this a little bit during your runs, particularly during to warmup of your runs, in order to get the feel of it and to learn that technique. It will come, if you're used to shallow breathing.

But, if you are shallow breathing, you're going to get into oxygen debt sooner in any run and you won't get the full oxygen utilization that you could if you were lower lung breathing. One technique for lower lung breathing, to facilitate it is once you start a run, before you take a breath, blow out very slightly, and then inhale. The little extra exhale right before you're taking in a breath helps facilitate the lower lung breathing for most of the people that I've worked with. It also helps to make sure that you are running upright, because if you are leaning forward, you will not be able to have as good a lower lung breath as you would have.

RALPH: It's kind of interesting, Jeff, I was raised by a choir director and the exact same rules apply for singing; breathe with your belly, maintain upright posture. So if you really want to attract attention, you practice your choral pieces while you're running.

JEFF: Yes, and actually there's a lot of good research on that, there are actually some coaches who have had some runners who experienced difficulties in their breathing, and they actually have prescribed doing some form of singing with the controlled breathing that you're talking about, because it does carry over.

RALPH: Yep, I mean, it's hard to sing four or eight bars on one breath while you're running, it's hard enough to do it while you're standing up in a choir, but I'm glad

to hear that you can confirm that. So, the next two questions I think are really the same question couched differently, “When you calculate your pace for your pace for walk/run, do you use your pace including the walk, or just the running part, or use the magic miles?”

And the second one basically reiterates the same thing, “If I want to run a marathon at an average pace, would I run faster than that during the run segments which are offset by the walks?” So, I think those are both the same question, but can you address that issue? How we calculate how fast are we running when we’re doing the run-walk-run?

JEFF: Well, you have to realize that I have a very simple brain. I reduce things down to a simple concept, and when it comes to your question here of what pace are we talking about, it’s what is on the watch at the end of each mile. That’s it, that’s bottom line. So, that is the pace that you would focus on when using the table that I mentioned.

For example, for an 8 minute per mile pace, the most popular right now is to run for 4 minutes and walk for 30 seconds, but I will say there are some other options and this is where you can experiment. The other options are to run for 3 minutes and walk for 20 seconds, and actually some people run for 2 minutes and walk for 15 seconds.

RALPH: Okay, okay, I get that. That’s helpful, I was the one that put up the question about the 8-minute mile, so that’s good. So, we’re going to close those out. Do you run/walk during a race or only during training?

JEFF: Well you want to use run-walk-run on long runs, too. Because if you don’t, then it’s going to take so much longer for your legs to recover after those long runs, where as a real liberal run-walk-run strategy on long runs means that you can recover extremely fast, yet you will get all the endurance based on the distance that you cover, which is also true about walking. So, if you for any reason hit a wall in a long run, then don’t quit, keep walking for the amount that you still need to cover, and you will get all the endurance of that run, the run or the walk.

RALPH: Great. And this one, I don’t know if it’s tongue in cheek or not, but “Why would I want to run a marathon? Seems abusive to me. I walk 3 miles 3 to 5 days a week and dance workout between.”

JEFF: Well, the wonderful thing about running and endurance walking is that each person is the captain of their ship, and they decide what they’re going to do on a given day, how far they’re going to go, how far during the season they’re going to go, how fast they’re going to go, that’s totally up to you.

But, I will say that I have coached individually approximately 100,000 runners, and what these folks say after the marathon is that, “As difficult as the training was, I’ve never had a feeling of exhilaration of any other accomplishment that I have ever done.” That is such a common comment, tens of thousands have told me almost in those exact words.

And I think that it has to do with activating certain parts of the brain that are very powerful and kept our ancestors going through those long treks that enabled them to survive. And I’m talking about those brain circuits that unleash those wonderful hormones and those circuits that give you a better attitude, that give you more energy, and allow you to be empowered to solve problems. There’s nothing like the marathon to do that, but you do have to do the right run-walk-run and that can keep you from being so beaten up.

RALPH: I would concur completely. Okay, so we’ll go to, “What advice would you give to someone who wants to keep a vegetarian/vegan lifestyle but who wants to run a half marathon?”

JEFF: There’s certainly nothing detrimental about a vegan lifestyle and distance running. My roommate in college, and you’re talking about the 1960s, before there was a lot of research in nutrition and endurance, I’m not sure there was any research there, but my roommate decided to go vegan during his last three years, and all of us on our team at Wesleyan University thought that he was crazy and he was going to run out of energy, and he would not have the muscle power to be able to run well, and you have to realize that this guy, my roommate, came in to our university which did not have any scholarships, they had no athletic scholarships at all, it was an academic school.

But my roommate, his senior year, won the Boston Marathon. The only collegiate athlete in the history of the Boston Marathon, and he did it totally on vegan power. I know a lot of other vegans who are very talented and very accomplished runners, and there have been a number of world record holders that have, so there’s nothing wrong with that, but what I would recommend, though, is to use one of the apps that you can find out there, like My Fitness Pal, and some of the others, because they allow you to monitor your intake and see if you’re getting the recommended daily allowances of the vitamins, minerals, and the essential amino acids for complete protein. It’s very important to monitor that, just to make sure.

RALPH: Good deal. And the last question is, “How do I get back to running after pulling a muscle?”

JEFF: You want to avoid any activity that could aggravate the area, and this is true about any injury. So, don’t run for at least 5 days and treat the area that is

affected. And so I'm going to go a little bit generic here, if it's a pulled muscle, then massage has been the best treatment for that.

Sometimes rubbing a chunk of ice on it for 15 minutes every night, that can be helpful, and there's nothing wrong with that, that's not going to set anything back. You do not want to stretch. You don't want to do any activity that stretches, because that will keep it injured and it won't allow it to heal. In terms of antiinflammatories, you have to talk to your doctor about that.

Sometimes with some pulls or strains and other muscle issues, the recovery can be sped up with antiinflammatories, but you need to talk to a doctor about that. The amount of days off completely for running among the people that I have worked with has usually not been more than 5 days off at the start of an injury. And then you would treat the injury site based on what the problem was, again, with the muscle situation massage has really worked best.

We have found a Galloway massager that you will see on our website, it's a vibrating massage tool that invigorates the muscle and also brings blood flow in that has speeded up the recovery rate quite a bit. You can also, if you are interested in that Galloway vibration machine, you can get a 15% discount from the website on that, and the code that you would use is JFG2020. It's still good in 2021, but JFG2020. Massage is best for muscles.

If it's an area that's next to the skin like the Achilles tendon, the ice massage, rubbing a chunk of ice on the Achilles or whatever is hurt, for 15 minutes every night. The healing occurs mostly overnight, so you want to predispose it to the maximum amount of healing before you got to bed. And then for joint issues, the knee, hip, and other areas, antiinflammatories have been very effective, but as I said, don't just go out and self-medicate, you really do need to talk to your doctor about antiinflammatories.

RALPH: What about these devices, I forget what they're called, but I put the pad on wherever the injury is and it sends pulses through it to activate the muscles. I want to say Stim, but that's...

SPEAKER: TENS.

RALPH: TENS, yeah, that's what I'm thinking of. What about them?

JEFF: Well, they're very specific in what they can do. In other words, there's a small percentage of people that get benefit from that, but they get great benefit from it. And so it's not across the board, it's not anything that I normally say, well, if you've got a muscle problem, then that is what you should do, because it can be quite expensive. In my experience and reports from the orthopedists that I've

worked with, it's effective in about 10%, they tell me, of runners who have muscle issues.

What happens mostly, as the doctors have told me, is that they use that therapy when nothing else has worked, and some of the doctors have told me that they're not sure that that actually is what did it, because the area was healing progressively over several weeks. You know, if nothing else is working, give it a try.

RALPH: Good deal. Jeff, do you have more material to present, or do you have time for more questions?

JEFF: We are actually into the area now where it is time for questions.

RALPH: Okay, I do have some more questions queued up and we'll bring that back up on the screen here. We're going to start with a question from Jen, "It has to do with plantar fasciitis. I'm a low level runner and have been dealing with it for over two years. Could it be due to stretching that entire time?"

JEFF: It certainly could. If you're stretching, I doubt if it's really going to ever fully heal. And once you stop stretching, it can start healing. So, that's really something to do right away. Now, there's not a lot of blood flow in the plantar area, so that vibrating massage tool has actually been shown to help bring some blood flow in there and it has speeded up a number of cases like yours, where it's been around for a long time, and it really got some good traction through the vibrating massage tool.

But other than that, the support that you would put in your shoe to make sure that the foot is not going through a lot of torque, you want to have an arch support system that really fills in your arch area enough so that your foot is not rolling back and forth. Then there is a prevention, but this exercise also can help speed up the healing in a lot of cases, and that is called the "toe clencher exercise."

What you're doing is you're pointing your foot down and you're clenching the muscles in your foot, mostly your forefoot, and those extend back to the heel area where the plantar fascia is located, and I've had quite a few success stories that did about 8 or 10 of these toe clenching episodes throughout the day for a month or two, and really got the healing on track by doing that.

RALPH: So, the next question, "Revolving magnets for healing faster?" Nikken makes a palm mag, do you have any experience with that?"

JEFF: Not at all, and I have asked orthopedists about that, and most of them really, folks that I respect, just didn't have a clue as to how that would work. But again,

there are a lot of things out there that work for individuals. And so if it works for you, then use it. There it is.

RALPH: So, the next question is, “What are your thoughts on shoe types?” And I think here specifically, there’s the five-finger deal and flats, everything from low profile to I guess they go up as high as 12 mm heel lift, I trip over them myself.

JEFF: Well, the best advice is to get the best advice. You want to go to the folks at running centers and if you’re in Atlanta, you can go to my store, Phidippides. They have people who are trained in shoe fitting and know the nuances of the foot, both in shape and in function. Those talented trained people will be able to see you walk and then see you run in a neutral shoe, and then start fine tuning based on shoes they think would work better for you.

The flat shoes or the minimalist shoes, like the five-finger shoes have a much higher rate of injury and I think this is mostly because people are using those that have no business using them. They’re not getting support, they’re forcing the foot to go through a whole lot more torque, and then it gets damaged. But again, get good advice.

RALPH: What do you wear?

JEFF: I actually, my son, Weston, worked for ASICS until recently. He quit his dream job to get married and move down and be with his wife and work with his wife. But he designed shoes for ASICS and he gave me a number of shoes that I’m still using. They work well for me. But I’m not going to ever tell you that everybody should wear ASICS, that’s not the case. There are a whole lot of individual issues, and you need to find the shoes within any brand that not only fit your foot, but match the way your foot operates or functions.

And there are basically two types of foot functions, and you’re going to see a whole lot of information on this in my Galloway’s Book on Running, Third Edition, including diagrams and so forth, so you can sort of get a better idea of how your foot is operating. But the two types of operating feet are the rigid foot which is more of a direct push-off, and the other type of foot function is the floppy foot, which has more mobility and rolls from side to side.

Now, that said, there’s a fairly high percentage of runners that can use a neutral shoe, but if you’re having trouble with a neutral shoe, then you really need to gravitate towards the shoe that is designed for the way your foot operates.

RALPH: Great, great. We’ve got a couple more here for you. “What’s your view on rollers for tight muscles, and T-band relief?”

JEFF: Well, the rollers, foam rollers, or the stick, or things like that, are a form of massage, and it's lingering towards the deep tissue massage, where you put pressure on the area. The benefit for it is very limited in that you have to design the rolling action based on what area you're trying to roll junk out of, and you have to be careful that you don't push it too hard, because you can. And so in cases where there is damage and you've got some biojunk left there due to an injury, the roller devices can help move the junk out, but they're not going to bring blood flow in, and that's where the massage or the massage tool, like our vibrating massage can help you.

RALPH: Okay, we've got two more questions in the queue. "Can you elaborate on what you said earlier regarding the ancestral monkey brain taking over during a run, and how to manage this to combat negative stress?"

JEFF: Okay, good question. Here's how it works. When we start to run, most of us are thinking about something that has been going on at work or in our personal life, or whatever, and so we've got the human brain working on that particular personal issue or job issue. And so we often at the beginning of a run defer the brain operating system, the ancient brain or monkey brain. Just going out and putting one foot in front of the other, the ancient brain is turned on.

Now, that's the emotional brain and at first it's not stressed, but as you get into a run and the stress builds up from fatigue and heat or other weather factors, or whatever, maybe rough terrain, or whatever, then as the stress builds up, the ancient brain, if you allow it to be under your control, then it is going to start releasing anxiety hormones so that you feel less motivated, and then if you keep going and there's further stress that builds up, the negative hormones come on and can make you feel absolutely miserable and want to quit.

Now, as I said, the antidote to that is having cognitive strategies. You will see a lot about this in my Mental Training book. The best first step for most people is to have a series of mantras you use. Once you say a mantra, like, I am going to overcome this. I feel better. I'm in control here.

Any statement like that, that you say over and over again and think about, will activate your human brain, which then overrides the ancient brain and it stops the flow of the negative hormones, so it puts you in control. But you have to follow up from the mantras into a strategy that can keep you in your human brain. And there are several strategies that you will see in a lot of my books, in the training part of most of my books, and particularly the Mental Training book, itself.

RALPH: Okay, and one more question, "Can you give us your opinion of wearing a Cho-Pat, or dual action straps for the knees during runs, training, to recover from knee injuries."

JEFF: Cho-Pat is one of the very specific devices that have helped some runners. There are quite a few of these knee devices out there on the market today. Each one of them that I'm familiar with has a small percentage of people that get benefit from it, but they can get immense benefit if the device like the Cho-Pat actually works for them.

It is something that I recommend trying when people are having knee pain and they have reduced their run-walk-run and they've done the other things that could possibly take away, and none of those things have worked. So, it's certainly something you should try, and there are several others that you will find in stores like Phidippides and running centers that can help lead you away from the pain that you get in the knees.

RALPH: A couple things, a couple housekeeping things. I might have mentioned earlier, if I haven't, we've got a special offer that's going to come out to everybody who is registered for these events with some special discounts at the Running Center and at Galloway Productions.

Anybody who is a participant in this event, of course you're always welcome to give us a call for any of your investment financial planning issues that have any questions with. We'd love it if you follow us on social media. We are doing these events at least once a month, we've got several good ones coming up. We've got one I'm particularly excited about in April about raising financially aware kids with the help of our friends at American Century Investments.

We'll pop up the list of upcoming events here on the screen in a second, because I can't remember them all. Here we go, we've got 8000 Days to Retirement, that is with the MIT Age Lab. We've got Jeff Galloway in the first week of March, we've got MIT, you're all familiar with Massachusetts Institute of Technology, we've got their Age lab doing a piece on 8000 Days to Retirement, for your information, that's 22 years, roughly, and that's the average length of a retirement.

Two weeks later, investing through impact investing, through the lens of faith, and we've got more coming up. You can check our webpage, the events page on our website. So, that being said, Jeff, thank you so much, I'll see you in a couple hours for our evening session. Thank you so much for joining us and making this doable. Thank you Running Center for helping organize this and for your promotion, it's been phenomenal.

SPEAKER: Absolutely, and I want to thank you also, Jeff, thank you.

JEFF: Glad to be here.

SPEAKER: Alright, well, we'll see you pretty soon, Ralph and Jeff. Now, go have some dinner. Bye.

RALPH: Bye.

JEFF: Bye-bye now.