

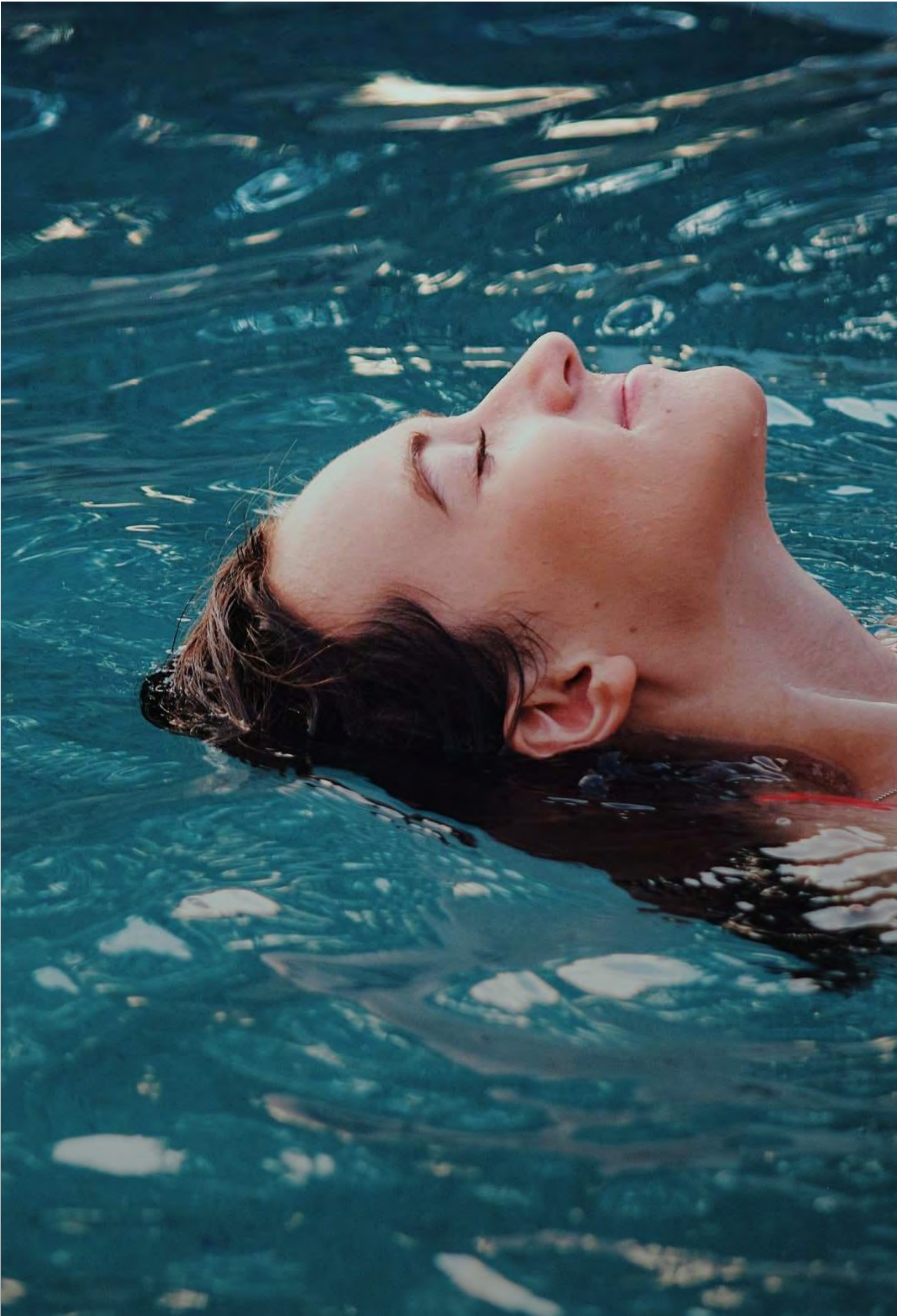
# The Sauna Sessions

EIGHT TIPS TO GET THE MOST  
OUT OF YOUR INFRARED SAUNA



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# Welcome

Hi, I'm Johannes Kettelhodt, one of the founders and the CEO of Clearlight Saunas International. Welcome to my "Clearlight's Eight Tips To Get The Most Out Of Your Infrared Sauna".



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This short ebook will give you some tips that most people don't know about to dramatically improve the effectiveness of your infrared sauna sessions.

These eight practical tips I describe are based upon scientific research, as-well-as my decades-long experience manufacturing infrared saunas. Not to mention the tons of experience I've built throughout the years speaking with industry experts.

The scientific research I explore covers topics such as vitamins and minerals, studies on saunas, heat tolerance, and much more. I'll break these tips down so that you can easily apply them.

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No.1

# Monitor Yourself

## Everyone's Heat Tolerance Differs

Nature hasn't equally endowed all individuals with the same biological properties. To give an example, not everyone has the same hand-eye coordination, agility, ability to relax, sleep rhythm and so on, but with the proper training, improvements to individual baselines can be made. Heat tolerance is the same:



Different individuals have different levels of natural heat tolerance (1; 2; 3; 4). For instance, if you've got existing health conditions such as diabetes your heat tolerance will almost certainly be lower. The same is true for being of older age and having the female sex.

Genetic differences in heat tolerance exist as well, and heat tolerance will also change with your overall fitness level. Also, the bigger your body, the higher your overall heat tolerance will be.

Some people also have lower increases in stress hormones such as "cortisol" and "adrenaline", which leads to lower increases in heart rate. That lower increase in heart rate assures that you can withstand the heat longer as well.

And, it's not only heat tolerance that matters. Huge differences exist between how different individuals can detoxify at different levels of their physiology. **Dr. Joseph Pizzorno** writes in his Toxin Solution book that:

“ [Each] of us is biochemically unique –especially in our ability to detoxify a huge range of poisons we're exposed to. This really shows up with toxicity – like smokers who live to over a hundred years without lung cancer – while for most of us, ridding the body of toxins isn't easy.” (5)

The more toxins you're exposed to, the lower your ability to detox becomes. In some biochemical processes, there's a 100-fold difference between different individuals' ability to remove toxins from the body.

So here's where I'm getting at in relation to infrared saunas: you might have a very different response to a 15 or 30 minute infrared sauna session than your spouse or best friend. For that reason, it's always important to observe how you react to an infrared sauna session.

For instance, one guideline may be the extent at which your heart rate reaches it's maximum for your age. Keep in mind, you shouldn't have an increase in symptoms of a health condition or feel worse than before, either during your session or the next day.

Moreover, even though it seems common sense, many people are implicitly adhering to the “no pain, no gain” mentality. That mentality implies that pain is the measurement for success and thus resulting in longer and hotter sessions.

Nothing could be further from the truth. If you have a high toxin load, low heat tolerance, and a poor ability to detoxify, you might feel wiped out after a 20-minute infrared sauna session. In other cases, the results might be totally different.



**TIP:**

**For objective data, try using a product like the [Oura Ring](#) or [Biostrap](#). These devices track your quality of sleep and analyse patterns in your heart rate for indications of stress.**



No.2

# Nutrients Matter

## Optimise Vitamins And Minerals For Heavy Sauna Days

**Before I talk about diet let me make a short detour through history:**

The Western diet is very paradoxical: even though food is more widely available than any time in history, the quality of foods consumed has trended down since the 20th Century ([6](#); [7](#)). Even though the topic is highly complex and multifaceted, a strong case can be made that levels of nutrients such as magnesium, zinc, and vitamin C has dropped off in many different foods.

With the emergence of large-scale industrial food production after the Second World War, you and your ancestors have been increasingly exposed to new foods.

Widespread soda consumption and “hyperpalatable” foods combining fat, sugar, and all kinds of additives, make these new foods maximally rewarding to the brain ([8](#); [9](#)).

The end-result - even though I’m somewhat oversimplifying here - is that nutritional deficiencies are still widespread in developed nations. For instance:

At least half of people living in different developed nations either are magnesium deficient or have suboptimal levels ([10](#); [11](#); [12](#)).

For vitamin D, those numbers are around 30-40% ([13](#); [14](#); [15](#)).

90% of people fall short of sufficient potassium intakes, for which fruits and vegetables are the main low-calorie high-nutrient density sources ([16](#); [17](#)).

Vitamin K2 deficiency or insufficiency might also be as high as 90%+ ([18](#)).





**My point?** Let me make an analogy: in the same way that many people understand that their diet and supplemental regime affect their body's ability in athletic performance, many people don't extend that conclusion towards their infrared sauna sessions.

And yet, there's ample evidence that exists suggesting that precisely your vitamin and mineral status not only affects your heat tolerance but also same the outcomes of why people use an infrared sauna in the first place.

Such outcomes include improved skin health, fat loss, cognition, relaxation, and sleep quality.

Let's also look at some examples of how vitamins and minerals affect your ability to tolerate heat - even though

research here is somewhat scarce. Magnesium status, has been shown to increase your overall heat tolerance ([19](#); [20](#); [21](#)).

It's also important for accomplishing many similar health goals that people use an infrared sauna for, such as fat loss, relaxation, lowering blood pressure, and improving sleep quality ([22](#); [23](#)).

An optimal iron status, is another mineral that is associated with thermo-regulation and heat tolerance ([24](#); [25](#); [26](#)). A deficiency in iron status will increase your risk of heatstroke and bring your overall heat tolerance down.

90% of people under-consume potassium ([27](#); [28](#); [29](#))? What's implied in these studies is that if you under consume potassium your body's ability to regulate heat is less.

Potassium additionally has many other important functions such as helping lower your blood pressure and aiding in the burning of glucose.

Hence, optimal potassium levels improve your heat tolerance in several ways, allowing you to stay in a sauna longer. ([30](#); [31](#); [32](#)).

I'd like to keep my recommendation simple: if you're not eating a high-quality diet and you're lacking sufficient levels of nutrients, your ability to regulate heat and your heat tolerance will probably not be optimal.

Nutrient-dense foods include unprocessed single-ingredient foods. I do believe that optimal diets vary from person to person, which is why I have no specific recommendations included.

I recommend a diet with exclusively organic foods high in vitamins and minerals.

A balanced diet with high levels of fruits and vegetables, whole grains, lean meats from land and seafood, beans, dairy products, nuts, and legumes, is ideal. Harvard University provides you with an [excellent list of these foods that should predominate your diet.](#)

Having optimal mineral status increases the health benefits you get out of your sauna by improving heat tolerance. With improved heat tolerance you can stay in for longer while it remains safe, enjoyable and therapeutic.



No.3

# Salt Is Your Friend

Consume Sufficient Salt To Replenish Losses



Sodium-chloride, commonly known as “salt”, is a mineral that has been intensively studied with regard to heat exposure and sweating ([33](#); [34](#); [35](#); [36](#); [37](#)).

What you might not know is that salt losses can vary from person to person. Even across your own lifespan the amount of salt contained in your sweat can vary big time.

What's fascinating is the worse that you're accustomed to heat in general, the greater your salt losses will typically be. So, if you've been using an infrared sauna for a long period of time, your body will almost certainly do a better job of holding on to sodium and chloride minerals.

If you're a beginner in infrared sauna use, keeping your salt levels higher than you usually would is increasingly important.





Most people cannot imagine how much salt the human body can lose in a short period of time. People working outdoors in the heat, can lose 15 grams of salt (which is 40% sodium) in one working day.

Even though a typical working day consists of eight hours of work, spending a fraction of this time in an infrared sauna will have you sweating much more intensely.

Three sauna sessions with breaks in between can cause you to lose up to ~1.5-2% of your bodyweight [\(38\)](#). Another study found a body weight loss of 0.65 kilograms after a 60-minute sauna session [\(39\)](#).

Assume that the body-weight losses due to sweating in a sauna are a mere third of what you'd lose during a working day in the heat. In that case, the average beginner would still lose 5 grams of salt, a full teaspoon, per sauna session.

At four infrared sauna sessions per week, you'd be creating a deficit of four teaspoons of salt per week. Of course, that underconsumption is only an issue if your sodium intake in your diet is very low.

If you have a higher bodyweight, or are of older age, this risk further increases.

Also, interpersonal differences exist that are harder to quantify without scientific measurement tools. In some studies there's a 10-fold difference in the sodium losses of the heaviest and lightest sweaters [\(40\)](#).

If you're already eating the nutrient-rich diet that I described during the first tip, and you're not adding any salt to your meals, you're doing yourself a disservice. If you use multiple infrared sauna sessions per week - which have generally shown the most benefit on health outcomes like blood pressure or inflammation - then salt supplementation is essential.

Now, just as having optimal levels of vitamins and minerals from your diet in the previous tip increased your overall heat tolerance, the same is true for having sufficient sodium [\(41; 42; 43\)](#).

By having sufficient amounts of sodium in your diet, your body has a higher heat tolerance, thus extending the amount of time you can enjoy in your sauna comfortably and safely.



No.4

# Make It Social

Distraction Can Help With Heat Tolerance  
And Building Habits



## Friends make everything better in life.

There may be a loneliness epidemic among adults - although not all scientific studies agree ([44](#); [45](#); [46](#)).

Loneliness has increased massively since the COVID-19 pandemic, even among young adults ([47](#); [48](#); [49](#)).

In fact, increases in loneliness are associated with a greater all-cause mortality (your overall risk of dying, independent of cause), and an increase in mental health problems, higher risk for heart disease, diabetes, Alzheimer's, and a lower quality of life ([50](#); [51](#)).

So, from the standpoint of socialising, there's ample evidence that shows inviting a friend over to spend time together in a sauna is an excellent choice.

**But there's more to the story:**

Scientific research also shows that most people are more likely to stick to a routine once it's performed in a group (52; 53; 54). The support that people get from each other increases the chances that you'll engage in the behaviour in the future again and create a new habit.

Not only will you feel good spending time in a sauna, but you're also

more likely to do it again if you do it together.

If you're socially isolated, pain perceptions are literally increased dramatically (55; 56). Simply put, if you're lonely, you'll feel more pain. However, once you're together with friends and don't feel socially isolated, pain perceptions go down.

With decreased pain perceptions, you're also able to last longer during a sauna session, thus increasing your tolerance. Things in life are better when you share them with your friends, and so are your sauna sessions' effectiveness.



No.5

# Pre-Heat Your Body



## Break A Sweat Before Stepping In

In other words, I'm telling you to not only to pre-heat your sauna but to pre-heat your body too. But before talking about saunas, let's take a short detour:

Exercise is an excellent way to increase your body's core temperature ([57](#); [58](#); [59](#)). The same is true for a hot bath ([60](#); [61](#)). For the best effects, the water needs to be warmer, towards the 40-degree temperature range.

Here are several reasons why you might exercise or take a hot bath pre sauna:



Spending time in a sauna activates what are called “heat shock proteins” ([62](#); [63](#); [64](#); [65](#)). Activating heat shock proteins has an anti-aging effect because it helps clean up damaged proteins, helps recycle non-functioning cells, and helps build new “mitochondria”. Mitochondria are the “energy-producing factories of your cells. Exercise has similar effects ([66](#); [67](#)). The same is true for hot baths ([68](#); [69](#)). From the perspective of heat-shock proteins, your sauna sessions can be made more effective by exercising first or taking a hot bath first, and then entering the sauna.





From a time-management perspective, exercising or taking a hot bath before a sauna is also an excellent choice. An infrared sauna - just like a regular sauna - takes some time to heat up, and hence, getting a 20-minute workout or bath in while the sauna is warming up is a smart move.

What's more, it's self-evident that exercise increases sweating. Warm baths, however, achieve the same outcome (70). The result is that you're sweating more by exercising or taking a hot bath first, and doing your sauna sessions afterwards. You'll also increase your heart rate, which will be pumping faster for when you enter the sauna.

Exercise also stimulates what is called "lymphatic drainage" (71; 72). For this reason the benefits of exercise before a sauna session are greater than that of a hot bath. The lymphatic system plays a role in the processing of cellular debris. That debris can include proteins, pathogens, and parts of the cell that have to be "recycled". And, while it's too simple to call any one process central to the human "detoxification" system, the case can be made that a more efficiently working lymphatic system helps your body stay young and healthy. Also, the lymphatic system will be working at full strength once you enter the sauna, thereby improving much of the detoxification processes.



### **The simple version of my argument?**

A hot bath, and especially exercising, improves many of the health benefits associated with infrared sauna use. Be careful to remember the first tip I gave though, as both exercise and intensive sauna use can be considered a “stressor”.

If you have chronic health conditions or are temporarily in poor health then you need to be more careful about combining exercise and hot baths with sauna use.

In conclusion, exercise and a hot bath preheat your body before a sauna session.

Exercise stimulates the heat shock proteins and activates the lymphatic system so that the effectiveness of your sessions goes up, while a hot bath increases your core temperature, cleans the skin and get's the heart pumping before you even step inside.

No.6

# Drink Water

Consuming More Water Increases Heat Tolerance  
And Helps Detoxification



Remember when I told you that you can lose 1-2% of your bodyweight or 0.65 kilograms during a sauna session ([73](#); [74](#))?

Well, that water needs to be replenished. Dehydration lowers the amount of water in your sweat while increasing the relative amount of minerals such as salt ([75](#); [76](#); [77](#)). With dehydration it also takes longer before you start sweating in the first place.

And even if you're dehydrated, drinking water during an activity with heavy sweating normalises the sweating response again [\(78\)](#).

Sweat is one main mechanism to expel some toxins, and therefore, making sure your body's ability to sweat is unimpeded is very important [\(79; 80\)](#). Many other toxins are preferably expelled through your lymphatic system, liver, kidneys, and digestive system, and those processes won't work properly if you're dehydrated. Hence, proper hydration increases detoxification at many different levels.

Although not directly related to toxin expulsion through the skin, drinking more water overall does improve hydration of the skin itself, both at the deep and superficial level [\(81\)](#). Anywhere between 60 and 75% of the human body consists of water, so naturally it's important to keep your levels high [\(82\)](#).

As far as I know - and I've dugged into the literature very methodically - no studies have currently shown whether the detoxification processes are winded down once you're dehydrated. Nevertheless it makes sense that once the body starts conserving water - because you haven't been drinking enough - it's likely that the detoxification processes are slowed down or halted entirely.

For instance, if you're iron deficient, your body will expel less iron through sweat [\(83\)](#). Increasing your fibre intake, for instance, specifically through plant foods, does affect your body's ability to remove toxins [\(84; 85\)](#).



### And there's more:

Dehydration increases the risk of heat illness and heat stroke, while proper hydration reverses that risk ([86](#); [87](#); [88](#)). By drinking sufficient water you increase your ability to stay inside a sauna for longer.

You may think: "how much should I drink then?"

Scientific studies show water losses of up to 2% during a long sauna session. Most of that weight loss are water losses. A 75-kilogram male should thus drink 1.5 liters of water during a long sauna session, and a 60-kilogram female 1.2 liters of water.

If you exercise heavily for 30 minutes while your sauna is warming up, you'll need another 0.5-1 liter of water, depending on how heavy you're sweating and your bodyweight.

If you have problems drinking that much water, try adding flavor to it, such as cucumber, lemon, or lime.



No.7

# Rinse And Repeat

Super-Charge Your Detoxification With Warm And Cold Showers



Your skin is not only a barrier to keep substances from entering your body. Your skin also expels toxins from your body through sweating.

The reverse is also true, however. The more toxins your skin is exposed to, the greater the quantity of toxins that end up in your body ([89](#); [90](#); [91](#); [92](#); [93](#); [94](#); [95](#)). Studies show mercury and lead exposure can be absorbed by the skin from cosmetics and skin-lightening products.



Rather than envisioning the skin as a barrier or a wall, it's better to see it as a sponge. Just like the air you breathe affects your health massively, the same is true for what you put on your skin. If there are pollutants in the air you breathe, it ends up in your body through your lungs. If there are toxins on your skin, they will eventually be re-absorbed.

Fortunately, you have a very high degree of control over what you put on your skin, contrary to the air that many people breathe. In other words, moving to a less air-polluted environment might not be possible for large parts of the population, but not putting toxins on your skin is.

### **How does this message translate to an infrared sauna recommendation?**

Once your body has expelled many toxins through your skin, it's best to take a warm shower for a short period of time after your session, and then switch to a cold shower to cool down the body. Showering will help remove these toxins and prevent them from being reabsorbed.

In fact, sauna expert [Dr. Marc Cohen](#) [has developed a specific protocol to optimise this process](#). Hot temperatures dilate your blood vessels and cold temperatures constrict them. By alternating between hot and cold you're flushing your circulatory system, which then improves your lymphatic system and enhances the detoxification process of your kidneys, liver, and digestive tract.

If you want to increase the intensity of that process even further, you can alternate with hot and cold temperatures multiple times.

Dr. Cohen explains his following sauna protocol:

- 1/ Rinsing before your sauna in warm, clean water
- 2/ Having a hot sauna to the point it becomes uncomfortable
- 3/ Experiencing a period of cold, such as an ice bath or cold shower, for a short period of time (minimum of 30 seconds)
- 4/ Regaining your balance or homeostasis (coming back to comfort)
- 5/ Repeating the steps 2 - 4 multiple times

Again, as stipulated in tip number one, build up this process slowly and monitor your recovery before repeating the hot and cold sequence three or four times.





No.8

# Upgrade Your Sauna

Complementary Modalities To Take Your Sauna Sessions To The Next Level



You probably agree that combining different strategies for weight-loss provides the best opportunity to reach a target weight. While some strategies might be more effect than others, when combined together the results are exponentially better.

Eating a health diet and ensureing a calorie deficiency is a sure fired way to begin to shred some extra kilos. But when combined with regular exercise and proper hydration, you can completely transform yourself into something new.

The same is true for using an infrared sauna. Very few people know that you can combine different modalities with your infrared sauna. These modalities include red light therapy, salt therapy, aromatherapy (using smell), and vibration therapy (which uses sound). When combined the results are exponentially greater.

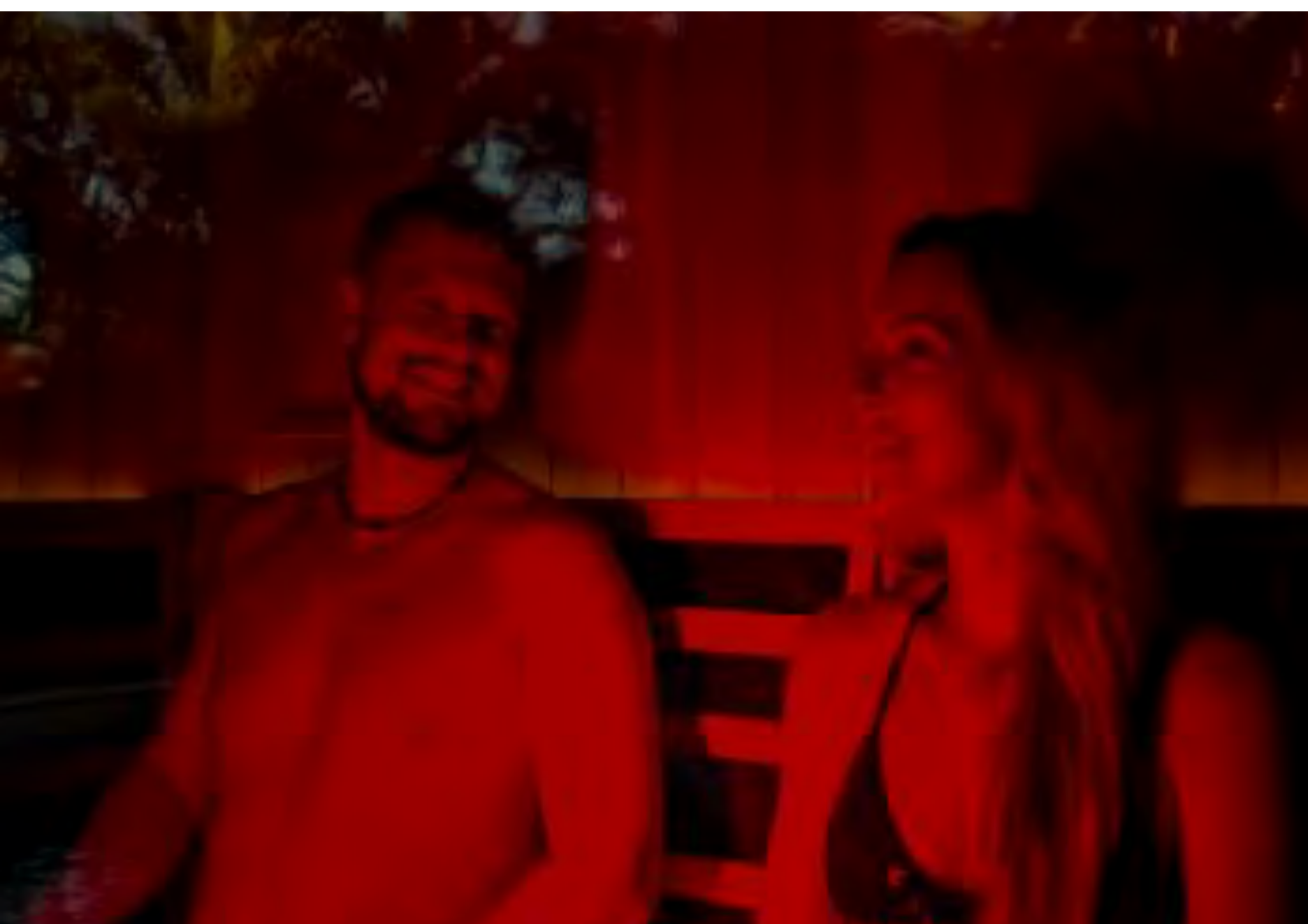
I'll explore these options one by one, spending most of my time on red light therapy.

**Red light therapy** has taken the health and wellness space by storm, even though most people aren't aware of these developments yet. Chances are that you're well aware of infrared saunas and their function but never heard about "red light therapy" before.

**So let me explain what red light therapy is:**

The sun emits different types of light, many of which hit the earth's surface. That light consists of "ultraviolet light", "visible light", and "infrared light".

The ultraviolet light is what can help you create vitamin D in the skin, tans you, and potentially gives you a sunburn. Infrared light is what makes sunlight feel hot, and also used in infrared saunas. Visible light is the only light you can see with your naked eye, and includes all the colours of the rainbow.



Red light therapy uses a small part of the visible light spectrum and a small part of the infrared light spectrum. To be more precise, these are the red light and a tiny portion of the near infrared part of the light spectrum.

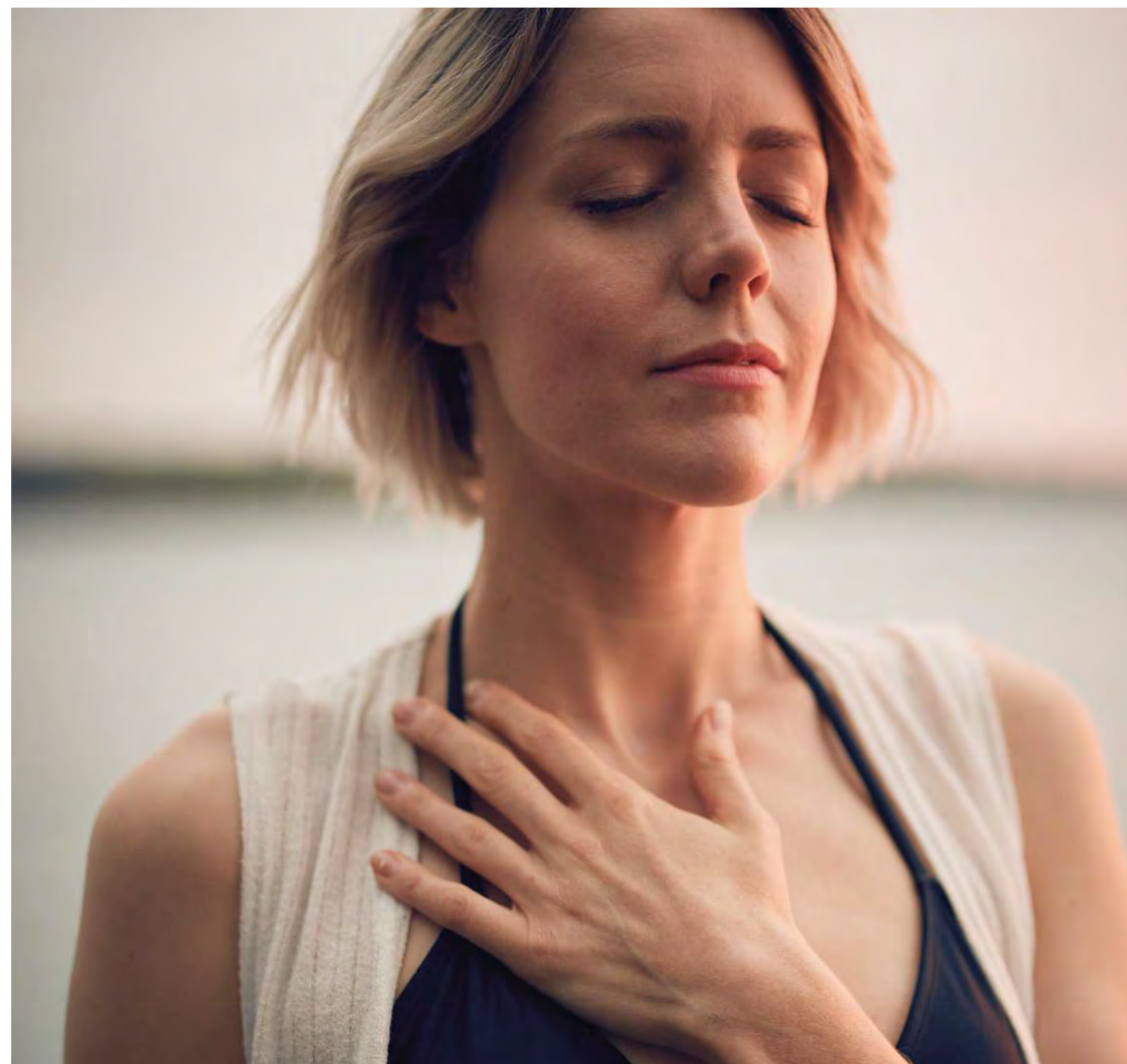
Now here's the deal: light is not just merely a neutral physical entity that allows you to see the environment around you. Instead, the red and near infrared light that your exposed to penetrates your body up to several inches deep ([96](#); [97](#); [98](#)).

As a result, red light therapy doesn't just affect your body's biology locally but also on a systemic level.

In the last few decades, thousands of studies have been carried out on red light therapy. Initially, the treatment was only available through lasers but today the price of LED lights has come down so much that selling professional-grade red light therapy units to consumers has become very viable.



**BENEFITS OF RED LIGHT THERAPY  
INCLUDE DEEPER SLEEP**



Our [Clearlight® Red Light Therapy Tower](#) is the first and currently only red light therapy device specifically made to be used inside a sauna. You can therefore enjoy the benefits of two different types of therapies at the same time.

The benefits of red light therapy and infrared saunas are fully independent from each other. Benefits of red light therapy include enhanced skin appearance, better cognition, deeper sleep, quicker recovery and greater athletic performance gains, improved healing, and much more.

It's somewhat unfortunate that many people who use a full-spectrum infrared sauna are unaware that they can get even greater overall health improvements without spending any additional time in their days.

Next up, Clearlight® HALOONE™. [The HALOONE™](#) is a “salt therapy” or “halotherapy” product to further improve your sauna experience.

In halotherapy, salt subsumed in water is aerosolised into the air that you breathe. That [salt then enters your airways and affects your body's biology](#). For many people salt therapy is extremely relaxing, clears their airways and makes them more resilient.

Lung function may also improve with salt therapy, as well as reducing your risk of getting problems with your lungs and airways.

Other additions to your sauna are "[Vibrational Resonance Therapy](#)", which uses vibrations (sound). Sound at different frequencies can lower anxiety and depression, or help you sleep better, improve mood, and enhance blood circulation.

The same is true for "[aromatherapy](#)", where essential oils are diffused into the air. Aromatherapy has been used for thousands of years and different compounds all have different effects for health.

Citrus helps with your energy levels, aids detoxification, and lifts your mood. Lavender makes you calm and relaxed.

Finally, the point of this tip is that you can multiply the number of modalities you use. In essence, you'll use a sauna for heat therapy, aromatherapy for the air you breathe, VRT as sound therapy, and red light therapy as a second but different source of light therapy.

Just like how the effectiveness of losing weight is optimised when combining multiple strategies, so to are the benefits from a sauna by adding other modalities.

And that's it...

Eight tips to massively improve the effectiveness of your infrared sauna sessions.

# Conclusion

In my conclusion, I want to explain a bit more about why these tips matter.

First of all, the more of these tips you apply, the better the health improvements from your sauna sessions will be. So, you'll experience the best health improvements by consistently applying all eight tips in this ebook.

Secondly, the extent to which these tips will benefit you is really hard to quantify. None of the studies I've quoted have used all the eight tips in a combination within a study, and it's thus difficult to say whether these tips double or triple the effectiveness of your sessions, or less.

Thirdly, the quantity of information I've provided might be off putting because of an information overload and because they require you to change your behaviour.

Changing your diet, as recommended in tip two, already takes a lot of willpower for many. If you find yourself in such a situation, start with tips that are easier to apply first, such as a warm shower after your session and consuming sufficient salt. Over time, you can slowly start applying more of these tips.

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