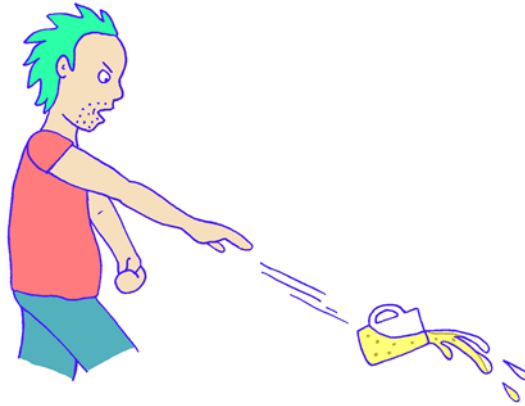


Think Before You Drink

Version 1.5



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Thank you for choosing to use this guide. The technique described here is aimed at people who want to reduce their alcohol consumption, perhaps because drinking has already led to problems at work, in relationships, or on the road. Perhaps also because you have heard that alcohol may cause physical problems, or simply because your doctor has advised you to “slow down.”

This new technique is intended to help you with this. But to succeed with it you will need some insight into your drinking behavior, including the understanding that drinking can indeed cause harm. And, you must have the firm intention to break through the problematic drinking pattern.

If you have been diagnosed with a serious alcohol dependence and want to quit drinking *right away*, this manual may not help you. Instead, “qualified alcohol withdrawal treatment,” is needed during which withdrawal symptoms such as seizures that may occur.

This guide is short, and the technique is easy to use. The real work begins afterwards. Only if you use the technique regularly will you be able to limit your alcohol consumption. Clearly, this manual cannot replace withdrawal- or cessation therapy.

Reading and understanding and the decision to change are an important start, but they are not enough. Try to actively integrate what you have learned into your everyday life! Please read the manual from front to back and do not jump to the end or skip passages that seem familiar or irrelevant to you.

Good luck!

From head to toe: alcohol – the insidious poison

Introduction

Mark Twain is credited with the following quote for smoking cigarettes, another habit that is hard to kick: "Giving up *smoking* is the easiest thing in the world. I know because I've done it thousands of times." Kicking a habit in the short term may be easy, but as the quote implies, perseverance is needed to keep consumption low over the long haul.

Especially at the beginning, reduced consumption may feel like deprivation and renunciation, and the craving for alcohol can be very strong. This is aggravated by the fact that alcohol is available almost everywhere and alcohol has many positive short-term effects. Of course, there's the taste: for many people the thought of that first beer at the end of work, or a nice glass of Merlot, induces a sense of well-being and relaxation. It also helps them to "switch off."

In the medium term, however, continuous consumption may result in serious side effects such as nausea, loss of control, cognitive and physical problems, and, in the long run, may eventually cause addiction. The supposed positive medical properties of alcohol, such as the notion that resveratrol, a substance in red wine, protects the cardiovascular system, encourage continued drinking. This hype is wide-spread but in fact the findings are highly controversial, in part because the few studies attributing positive effects to alcohol have been partly sponsored by the alcohol industry. And even so, those findings have been ambiguous, and it is certainly unclear whether the purported benefits outweigh the many other drawbacks. In some of these studies, people who abuse alcohol were compared with teetotalers. The latter group included people who had been advised not to drink alcohol at all due to physical or mental disorders. As a result, the comparison was by no means fair.

Thus, for example, the connection between alcohol consumption and the following physical and mental disorders has been scientifically established:

- Alcohol abuse can be fatal, even if death is usually caused by late side effects.
- Among the numerous long-term consequences of alcohol abuse are liver damage such as fatty liver, hepatitis, and cirrhosis of the liver. A chronically inflamed pancreas, which can cause diabetes, is not uncommon.
- Other diseases caused by chronic alcohol consumption include gout, hormonal disorders, and sexual dysfunctions such as impotence.
- Chronic alcohol consumption damages the mucous membranes of the mouth, throat, esophagus, and stomach, often leading to inflammation of the esophagus and stomach.
- In addition, certain cancers are more common, including esophageal and throat cancer.
- Alcohol abuse also causes lasting damage to the cardiovascular system, including

high blood pressure and heart muscle diseases.

- Secondary diseases, including brain and nervous system damage, are not uncommon.
- In addition to neurological disorders such as gait insecurity due to cerebellar damage or liver- related brain damage (hepatic encephalopathy), the risk of strokes increases.
- In addition, alcohol can lead to long-term brain and neuropsychological deficits, including severe impairments of attention, memory, time perception, and problem-solving abilities. A typical alcohol-related disease is the amnesic disorder called Korsakoff's syndrome, which leads to memory loss, as recent information in particular can no longer be recalled.

Why are we writing this? After all, you have already decided to drink less and so you probably know a lot of this already. Then why should we scare you? All too often, people get cold feet as soon as the "real work" begins. At those times we like to recall the supposed pleasures of alcohol and downplay the risks.

"I don't like the drugs but the drugs like me". - (Marilyn Manson)

As with practically everything that is fun or experienced as pleasant in the short term, such as recreational drugs, but also eating, gambling, and sex, there can be a downside to alcohol: abuse to the point of addiction. The urge for alcohol is often so strong that the person can hardly resist the overwhelming craving. The accompanying thoughts ("I think I'll kick back with a good drink and make plans") and feelings, especially the prospect of feeling better ("Finally I can relax, calm down, and give myself a treat"), are often triggered by a kind of fever state that may include trembling and sweating. The only way to deal with this intense state and make it tolerable seems to be alcohol. This type of craving is not specific to alcohol – we find it in many substance-related addictions (e.g., to cocaine and tobacco) but also in behavioral addictions (e.g., gambling).

Accordingly, the treatment of addiction disorders has to be initiated from several angles. Typically, the treatment of alcohol use disorder aims at changing feelings and thoughts. In therapy, clients are taught over time to apply new strategies with which they can positively influence their feelings and actively tackle their problems instead of numbing or forgetting them with alcohol. Alternative leisure activities and avoidance of the environment in which the substance is available and consumed, can effectively support this.

The new technique presented here starts with bodily sensations, which have long been neglected in addiction therapy, even though the urge for alcohol is accompanied by strong physical responses. In severe alcohol addiction, the physical symptoms are particularly obvious, as the alcoholic trembles and sweats in the morning when he craves alcohol. Even if one knows intellectually that one should break with the habit, the physical urge is often so overwhelming that alcohol is the only thing that seems to promise relief. It feels like the quote from Marilyn Manson above. The alcohol grabs hold and never lets go.

Think before you drink

Preliminary note

Before getting into the technique itself, we would like to talk briefly about how it works psychologically. A psychological technique can only be fully effective if the person using it understands it and is convinced of its efficacy. In this respect, psychotherapy is different from pharmacotherapy, which requires no understanding or conviction. Aspirin, for example, gets rid of headaches even if you have no idea how it works!

The "Think before you drink" technique is based on a computer-assisted procedure called "retraining" that has achieved promising results in studies with people with alcohol dependency and other addictive disorders. In the case of alcohol addiction, retraining involves viewing images of alcoholic and non-alcoholic beverages. The images become larger when you pull a joystick towards you and smaller when you push it away. The person is instructed to push pictures away with the joystick if they depict alcoholic beverages and to pull them towards him if they depict non-alcoholic beverages. The use of this technique has been shown not only to lead to a reduction in alcohol consumption but also to be effective in preventing relapse. The technique seems to help to reduce the physical urge to drink.

How can that be? Isn't it too good to be true?

A certain amount of skepticism is always useful when groundbreaking successes are published in scientific journals and echoed by the media. For researchers, "One study is no study." However, the therapeutic effect of the retraining has been repeatedly confirmed by independent scientists and can be regarded as established. The original computerized technique is quite complex and monotonous and has certain other disadvantages (see below), so we believe it could be improved by some changes. Before we talk about this, we would like to explain briefly what we know so far about the psychological mechanisms by which the procedure works. This is important because we have taken into account some of these mechanisms of action in the new technique we present later.

How retraining works

Let us start with the word: “retraining”. *Retraining* is about new learning. Our new technique builds on unconscious processes that make us automatically approach things we like (e.g., hugging someone, approaching an object out of curiosity). This has long since found its way into our language. For example, we find certain people *attractive* and sometimes even talk about *magnetic attraction*. On the other hand, we automatically reject and distance ourselves from things we don’t like. We may find someone or something we don’t like *repulsive* or *repellant*. This type of language is both physically and linguistically anchored and is more or less equally used by all people.

Scientific Digression: Embodiment – The "Physicalness" of Approach and Avoidance

In basic research studies that preceded classical "retraining," participants with an addiction (e.g., people with alcohol problems, slot machine gamblers) viewed stimuli on a computer that depicted the addictive substance (e.g., a beer bottle, a slot machine) or neutral stimuli (e.g., a bottle of mineral water, a flower pot). Participants were told to push or pull the joystick based on the physical properties of the image, such as whether the picture was presented in portrait or landscape format, not based on the content or meaning of the image. Participants were instructed to push the joystick away as quickly as possible when they were shown a portrait image (the image on the screen then became smaller); they were instructed to pull the joystick towards them when they were shown a landscape image (the image on the screen then became larger). Importantly, if a participant with alcohol addiction was shown a beer bottle, he or she reacted faster if it was presented in landscape format than in portrait format (their "pulling" of the joystick was faster than their "pushing" of the joystick). Similar results have been found with other addictions. These studies show that addiction is associated with a corresponding physical preference (pathological approach behavior). In people without an addiction, this behavior pattern is absent or significantly attenuated.

Now to the opposite case. In people whose behavior is characterized by strong avoidance, e.g. people who react with fear or disgust to spiders, snakes etc., their reaction to images of objects that fill them with fear is correspondingly faster when they are in portrait format (i.e., the "push" movement with the joystick) than in landscape format (the "pull" movement). This shows that disgust and fear are physically connected to a defensive reaction. By the way, it makes no difference whether test subjects “pull” in response to the landscape format and “push” in response to the portrait format or vice versa.

This technique breaks the pathological coupling of alcohol with the physical urge to approach alcohol.

Retraining makes use of this normal human response tendency by blocking the urge for alcohol with the help of an opposite physical action and thus reduces both the urge and also the consumption of the addictive substance.

Disadvantage of classical retraining

As already mentioned, retraining in its original computerized form has certain disadvantages. For one thing, different people like different alcoholic beverages. Not everyone likes beer or hard liquor. Some drink only one kind of alcohol; others drink various kinds. Brands also play a role, as do labels. Someone who drinks only beer won't necessarily break out in a sweat at the sight of an image of a bottle of red wine. Standardized computer programs do not deal with this level of individualization well. Another advantage of these programs is that some people will do anything to avoid sitting in front of a computer every day and doing the monotonous retraining exercises. It's not much fun.

The new technique: Think before you drink

The technique presented here is based on the principle of retraining, but shifts the execution from a computer to one's own imagination.

The use of behavioral techniques alongside imaginal ones is not unusual in psychotherapy. It has long been known that people who suffer from a phobia, such as a fear of certain animals such as spiders or of closed or open spaces, may benefit from exposure- or confrontation therapy. That is, they deliberately expose themselves to the dreaded objects or situations. By doing so, they may get to the point where they can say: "I can deal with it; it's not so bad after all". This involves their realization that the consequences they fear will not occur and that their fear will eventually subside on its own. In the treatment of anxiety, this procedure is effective both when exposing oneself directly to objects or situations in real life as well as when imagining them or viewing them in a simulated environment (e.g., in virtual reality experiments with 3D glasses).

We make use of the latter principle (i.e., imagined exposure) for our variant of retraining. In our opinion, this shift into the world of imagination has several advantages over the original computerized technology. So you can imagine your favorite alcoholic beverages of choice as well as the non-alcoholic beverages that also taste good to you or that you at least find OK. In addition, you can also imagine the typical environment in which you usually drink. For some, it may be their own living room; for others, it may be the bar counter. Several times a day, you should imagine your favorite alcoholic drinks, preferably in the typical surroundings. Instead of simply pushing away an image on a computer screen, as in the original computerized exercise, using our imagination offers more possibilities, and this, in our opinion, can significantly increase the effectiveness of the technique.

Let's go through the steps.

Choice of alcoholic beverages: Most people have one to three favorite alcoholic drinks. Think about this, and identify where you usually consume your favorite drink (i.e., from a glass, directly from the bottle or can). Vividly imagine your favorite drinks. Imagine its color, smell, and taste in detail. Then, push away the drinks again and again, as described below.

Choice of non-alcoholic beverages: Next, think of non-alcoholic drinks that you like or consume regularly (e.g., coffee, ice tea, or water). Again, recall how you typically drink them, whether in a glass, cup, or bottle. Use as many sensory modalities as possible to imagine these drinks. Then, pull these beverages in your thoughts towards yourself again and again, as described in the concrete exercise section below.

It has been repeatedly demonstrated that aversive stimuli lead to a defensive or avoidant reaction, while pleasant stimuli lead to an approach response. As mentioned before, this is the principle on which retraining is based. This also applies to up versus down. People can tell we are depressed from our posture. We may walk slumped over or make ourselves small; the corners of our mouth may droop. On the other hand, pride and a good mood do the opposite; we walk erect and the corners of our mouth are lifted up letting everyone know how good we're feeling. As a result of *mirror neurons* in the brain, which are important for feelings of empathy and compassion and for the transference of emotions, most people react negatively when they see photos of people whose bodies and facial expressions are drooping. This may be mirrored in our own behavior; when we see someone with a bent posture, we may spontaneously adopt that posture and the facial expression that goes with it. This may in turn depress our mood. Although we are often unconscious of these "infectious effects," they have been scientifically established. These effects of the mirror neurons are exactly what we want to make use of with the technique presented here.

Our emotional and physical selves interact. An elevated or depressed mood causes us to walk upright or bent over. But this also works the other way around. Try it out. Gestures and posture are so rooted in our emotional world that straightening the body involuntarily leads to a slight improvement in mood, while slumping and walking dejectedly may darken our thoughts. Or, look up at the sky. Most people find it difficult to have negative thoughts when they do. The effect is amazing and shows the linkage between mind and emotion and the body.

Why is this important here? Instead of simply pushing away alcoholic beverages in your mind, we advise that you perform the following sequence regularly.

Concrete exercises:

1. Imagine one of your favorite alcoholic drinks.
2. Exhale and slump into yourself. Make your shoulders round and bent and reinforce this as consciously as possible with cloudy thoughts.
3. In your mind, take your favorite alcoholic drink in your hand where you drink it most often and then get rid of it (e.g., throw it along the bar counter as if it were a bowling lane). Look at the photo below. At the end, the drink should shatter or, if you don't have moral issues with it (remember, this is only in your head), wreck the place where you drink (e.g., stain the carpet and walls with the food; break a few chairs). Important: Imagine the drink and where you usually drink it in your mind, but really make the movement of rejecting the alcohol with your body.

4. As we have discussed, rejection is associated with a (horizontal) push movement and also a downward motion (think of the “thumbs down” sign of disapproval). That is why we recommend that you throw the drink on the ground in your thoughts. You could also imagine spitting or vomiting the wine or beer into the toilet. Make the scene as grotesque as possible. If you want, you can pretend to become nauseous, but, of course, don't make yourself throw up. You know yourself and your body best and will know which method to use to physically reinforce your imagination. Repeat this a few times a day.

Try to play with the technique and develop your own scenarios. The above scenarios are only suggestions, but it is important that an accelerated movement *away from the body* is included in your exercise. **Important: The movement should be physically executed, not just imagined!**

Also think of your "second-favorite drinks" (i.e., non-alcoholic drinks that you consume regularly) or – if you consume almost exclusively alcoholic beverages – one which you think you *might* like. Detailed instructions follow in the next section.





Phases of the aversion exercise: Take an alcoholic drink in your hand in your imagination, bend your body forwards (not just in your thoughts – actually execute this behavior) and contemplate negative thoughts – and then imagine throwing the drink to the ground (see the text; actually push or throw away with your arms and hands the drink that you are imagining in your mind).

Now the opposite sequence for non-alcoholic drinks:

1. Imagine a non-alcoholic drink you like.
2. Take a deep breath. Make yourself tall and stand up as if someone were pulling you up by an imaginary thread attached to the top of your head. Your posture is upright and relaxed, your eyes are looking straight ahead, and your head is not bending forward. Your shoulders are back and your chest is forward. Can you feel how this posture alone creates a feeling of strength and confidence?
3. Now, hold a glass or bottle towards your mouth, exaggerating the motion as in the photo below (similar to images in advertisements) so that you are looking slightly upwards, which improves the mood in many people.



At the same time, if you can, try to create other pleasant feelings (if you can't, no problem). For example, imagine sitting together and laughing with others while drinking or hugging a beloved person or pet. As soon as you have as vivid a positive feeling as possible, imagine drinking the non-alcoholic beverage. It's about connecting positive feelings, especially bodily feelings, with the beverage.



Grab an imaginary non-alcoholic drink, straighten your posture as described, lift the imaginary drink high and, if possible, couple these actions with other positive feelings (e.g., stroking a pet; see the text)

Try different things. You don't have to do the sequences in strict order, and you can do one of the imagination exercises several times in succession. Do whatever seems to work, but do both exercises – the one with the alcoholic beverage and the one with the non-alcoholic beverage.

A few tips:

- Set a timer (e.g., using a smartphone or app; for instructions, see below) so that you are reminded to do the full sequence of the exercises at least twice a day. Practice for about 10 minutes a day. You do not have to do the exercises in a completely quiet environment, but it is important that you are able to concentrate on them and are not constantly disturbed by outside influences or other people. You don't always have to do the exercises at the same time of day. Of course, the benefit of having a fixed time is that you'll remember to do them more easily, but if you do the exercises at a different time every day, that's fine too.
- The aim of the technique is not necessarily complete abstinence from alcohol, but reduction. The following steps will help: Drink from small bottles; it's better to drink from a 12-ounce bottle of beer than from a quart. Opt for a standard glass of wine rather than the larger ones that are sometimes available. Then place the opened bottle outside your field of vision. Instruct yourself not to buy alcohol at a store, but toss the money you've saved into a piggy bank and spend it on something nice at the end of the month or year. You'll be amazed at how much money you used to spend on alcohol.
- After drinking a glass or a unit of alcohol, drink a non-alcoholic beverage of about the same quantity, preferably a little more. For example, after a glass of wine, drink a glass of water. Don't just gulp it down, but take your time – at least 10 minutes. Compare the thirst-quenching and satisfying effect of the non-alcoholic drink with the effect of the alcoholic drink, which makes you crave more and more.

- Don't automatically drink the next glass of alcohol right away, but consciously consider whether you really want another glass. The non-alcoholic drink fills the stomach and thus reduces the urge to continue drinking, but above all it leads to a less "binge" drinking and to more conscious drinking. An almost empty glass of wine or beer may induce a feeling of emptiness or vacuum that many people find irresistible. As a result they may start thinking about the next beer or glass of wine before even finishing the one in front of them. Drinking speeds up. But if you alternate (alcohol -> non-alcohol -> alcohol etc.), you know that after the glass or the bottle, no alcohol will follow. Ideally, this will cause you to lower your alcohol consumption.
- While you are drinking the *non-alcoholic* beverages, try to do the above exercises in your imagination – that is, drink with pleasure and consciously – in an upright position. Don't slump. Think of a beautiful object or scenery. When you are imagining *alcohol*, however, try not to evoke any positive thoughts, because you are trying to cut the connection between alcohol and good feelings as much as possible.

The aim of the exercises is to couple alcohol with physical aversion in order to weaken the physical urge for alcohol. Try to incorporate this into your everyday life. If you pass a garbage can or notice an unpleasant smell somewhere, imagine your favorite alcoholic drink.

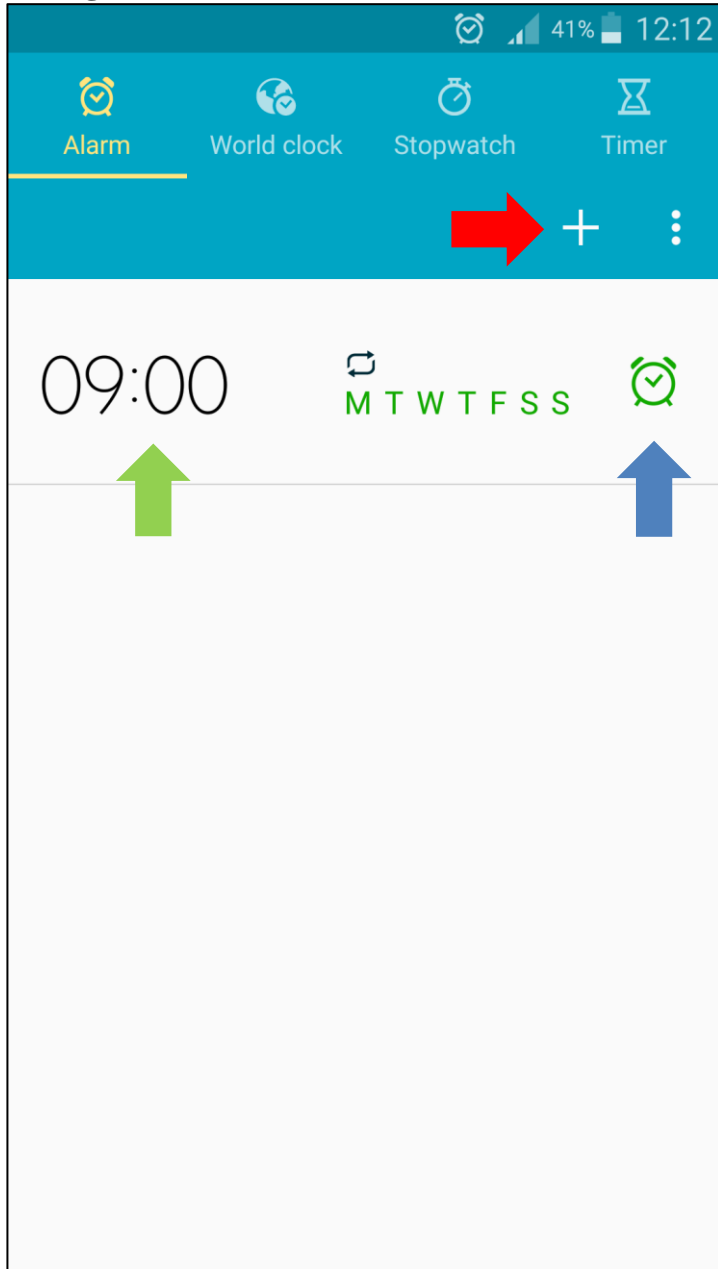
Play around with the technique and have fun with it.

So, let's do it:

Start today. If you have any questions, please contact Prof. Dr. Steffen Moritz (moritz@uke.de).

We thank Janne Hottenrott for creating the drawings.

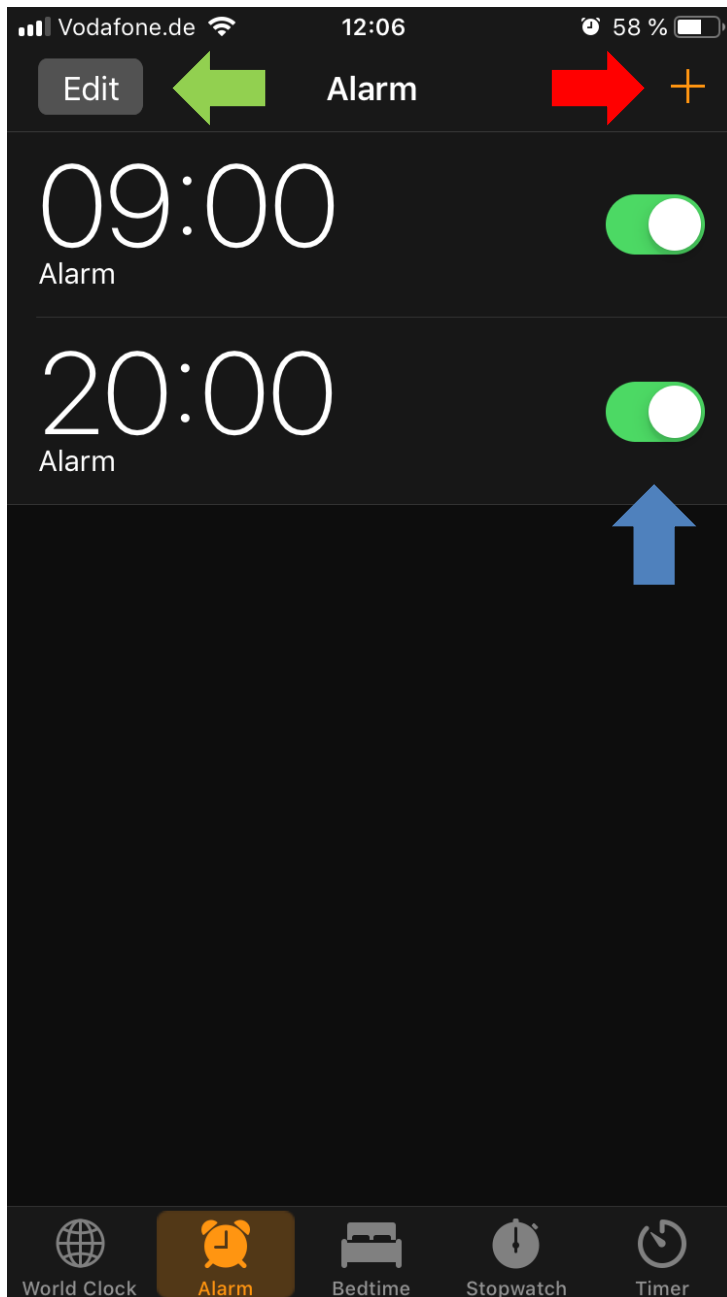
Setting a timer



For Android smartphones:

Example of setting a new alarm

Open the app “Clock” (usually pre-installed as a standard application; if not, many timer/clock apps are available free of charge). In the menu under “Alarm” you can set any number of reminders via the plus symbol (red arrow). By clicking on the time (green arrow), you will reach a new menu field where you can set whether you want to be reminded daily or only on certain days. Activate the alarm by clicking on the alarm clock (blue arrow).



For iOS smartphones:

Example of setting an alarm

Open the “Clock” app (standard iOS app; doesn’t have to be installed). In the menu under “Alarm,” you can set any number of reminders via the plus symbol (**red arrow**). By clicking on “Edit” (**green arrow**) and then on the appropriate reminder, you will reach a new menu where you can set whether you want to be reminded daily or only on certain days. Activate the alarm by moving the slider to the right (**blue arrow**).