



reducept

Reducept Manual for Practitioners

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Instruction protocol

Here you will read about how to use Reducept in your treatment! The following pages provide a guide for using Reducept. This protocol is written for different professionals who treat pain complaints. Various practical tips are given in the protocol. The manual can be seen as a step-by-step plan for using Reducept and offers guidance for your treatment.

For who is Reducept suitable?

In the Netherlands, we have a 'chronic pain care standard'. This document was created through the collaboration of the most important organisations that deal with the treatment of and reimbursement for pain-related issues. The standard of care states that pain education is an important first step for anyone with chronic pain, regardless of the level of care. In addition, interventions that determine the extent to which a person learns to manage his or her pain play an important role in the standard of care. In that sense, Reducept is suitable for anyone who has been struggling with pain for a long time. That is also a personal estimate perhaps one patient has enough education regarding Reducept, where another patient can train more extensively. For more detailed information, theory of Reducept, indication and risks please refer to the Reducept course document

Our experience shows that patients who are unable to manage their pain well and who have a very somatic vision of the pain, achieve the most benefits by training with Reducept.

Stepped care

Reducept fits well within a stepped care model. This means that you increase the intensity of the care in steps (unless there are good indications for immediately providing a more intensive level of care!). Reducept is an accessible introduction to pain education and pain management and a patient can train for many hours without affecting the costs of the program. In line with the Chronic Pain care standard, we recommend providing Reducept at the start of treatment.



www.reducept.com



The components of Reducept

Reducept consists of several components: the VR app, mobile app and website. The VR app is mostly used in the guided therapy, while the mobile app and the website are perfect at-home practice tools.

Virtual Reality (VR)

Reducept is best known for the VR training we offer. VR provides an intensive training experience that is especially suited to offer in the treatment setting. The best experience is provided by professional VR headsets, where we currently support the PICO G2 4K as a VR headset for professionals.

The mobile app

The Reducept smartphone app, available for iOS and Android, replicates the VR experience. Patients take the same journey through the nervous system. Patients have the choice of doing so without a VR headset, or a special VR headset for the cell phone. We recommend that patients purchase a VR headset for the smartphone, but unfortunately not every smartphone is suitable for VR. At that point, a flat version is an option.

The Member Page

At www.reducept.com/member/profile, patients can log in with their own profile. On this page, patients can

- Follow a digital pain course
- Download workbooks
- Do extra exercises
- Watch or review expert videos
- Follow live events

In short, on this page patients will find supportive information that can help them along. The information is organized into the categories of thinking, doing, feeling, attention and knowledge.

The Dashboard

At dashboard.reducept.com, as a practitioner, you organize your patients. Here you can create profiles and view patients' progress, manage VR headsets and add colleagues. You also decide here whether to activate home use for your patient, which will send patients their own login information for the app and website.



Session 1: Explanation of patient treatment, and technical explanation

Before this session takes place, it is assumed that during the initial consultation it has been established that the patient has chronic pain.

Make sure the patient is logged into the practitioner's dashboard before the session starts! So there should be a 'player' created for the patient. If you are using your institution's VR headset for the session you can log it in under 'devices'. If you use the mobile version, you will need the patient's mobile activation code if you want the player to log in on his own phone, you will need to activate 'home use' in the player account. All the latest Reducept manuals can be found on our website.

Goals of the session:

1. Make the concept of Reducept known
2. Technical explanation and actions required to start Reducept
3. First introduction Reducept
4. Set up a schedule to train with Reducept

Insofar as not yet discussed with the patient, you can indicate that Reducept will be part of the treatment of chronic pain complaints. This session will often take up the full session time.

Concept: 'As part of the treatment, you will train with Reducept. Reducept is a Virtual Reality training specially developed for people who have had pain for a long time. The training is a supplement to the consultations/exercises that we have done/will do here.

Reducept is a digital form of training that takes place in Virtual Reality, your smartphone and on the Reducept-website. With Reducept, you make a journey through the nervous system. You see and hear how pain works. Understanding how pain works means that you can respond to your pain in daily life. In addition, you do different exercises in Reducept, which ensure that your brain deals with the pain differently, so that you get a better grip on your pain complaints. Because it is in-game form, you will sometimes not even realise that you are doing an exercise.

Both the knowledge and exercises of Reducept are based on scientific research and treatment methods that have been proven to positively influence pain.

You may notice a difference in your pain experience the first time you play. Someone has to train for a longer period to notice the difference, but the training can also have an effect on your daily life. You can compare practising with Reducept to sports, where the start is often difficult and you have to hold on for longer for results.

Check whether the patient has understood the information, possibly have your patient briefly summarise what you have discussed or ask a few short questions. If necessary, correct the expectations especially when the patient's focus is very much on pain reduction. When patients focus too much on a (quick) reduction in pain, this often has the opposite effect. It does not have to be denied that knowledge and training can lead to a reduction in pain in the long term (because there is much evidence for that), but try to focus on learning knowledge and skills.



Go through the technical operations together with the patient

Go through the steps with the patient to start Reducept on Pico, or the steps to activate Reducept on a mobile phone. If you manage to start Reducept, you can immediately start to go through part of the training. You can also decide to have your patient trained at home. When the patient trains with the mobile phone at home, it is helpful if the patient has a VR set for mobile phones. Reducept supplies basic VR glasses per ten, but there are also other providers such as UnboundVR that sell excellent VR glasses for mobile phones.

In the dashboard manual of Reducept, you will find detailed instructions on creating home licenses. Click on 'Actions' and 'Allow home use' for a player. Your patient will receive an activation link via email and an additional explanation about using Reducept. You do not have to provide your patient with extra information, we will all send that to you!

ATTENTION! The app runs on all phones where Reducept can be found in the app store (Apple or Android) the app runs. Some Samsung devices (The Galaxy S series) have their own VR system Gear VR. Reducept is not available in VR for these phones. Not every phone can display Reducept in VR it is good for the patient to test this before purchasing their own headset.

If you let the patient play during the Reducept session:

Ask the patient to play the introduction and, for example, 'the nerve tracts' this is a good time to evaluate and usually also the end of the first session. Have the patient start Reducept. Most patients go through the introduction independently. By listening to the patient, you can understand where he is at that moment. Assist the patient if necessary.

ATTENTION! The next game part will only be available after the first part has been completed. The patient must have completed all parts before they can make a 'free choice' as to which parts can be played again.

Let the Patient go through Reducept until they reach the 'nerve tracts'.

Follow-up discussion: "You can pause Reducept for now. You don't have to do anything for this and you can simply switch off the headset".

Ask about the patient's first experiences. The first time use of VR often makes a big impression! Often patients are already able to name things that they have noticed. Reflect with your patient on the education and the first gameplay part of Reducept in which patients redress the threat-related stimuli.

The most important points that emerge from education in the first gameplay (nerve tracts):

- There are threat-related stimuli in your nervous system that can cause pain
- These stimuli protect you against danger
- With chronic pain, there may be more threat-related stimuli at the site of pain
- These threat-related stimuli can remain active even if there is no longer any damage in the body





The most important principles in the first gameplay (nerve bundles):

The first part of the gameplay is a strong visual metaphor in which the patient has clear control and influence on the threat-related stimuli in their nervous system. The emotional part of our brain 'thinks' that what we see in VR is real. By giving the patient control, the emotional brain responds sometimes immediately with less pain! In psychology, this is called 'visualization'.

Exercises that use this type of 'visual' strategy are very common in psychology. Relaxation exercises, mindfulness and many exercises from cognitive behavioural therapy make use of this.

Get started!

In this protocol, we assume that most patients can train at home, or regularly at the practice. The recommendation is to let patients play with Reducept several times a week for four weeks. As a practitioner, you can follow along on this yourself on the dashboard.

- Make an appointment about training, as well as a follow-up appointment.
- Advise patients to go through the entire program every day. Preferably regularly with the 'entire' education. A fixed moment in the day often works best in creating a new habit.
- Ask your patient to write down the experiences briefly: what has the patient experienced and learned (with every training)?
- In addition to the app training, patients can start their pain course on the member page, or find more in-depth information.
 - On the member page, you will find the pain course. For the first week, the first video can be watched, and if necessary the matching workbook can be used.



Session 2: Go through the rest of the training

The second Reducept session takes approximately 30 minutes. To save time, you can choose not to let the patient play Reducept during the session and only to consider the education and follow-up planning. Especially if the patient has already completed the entire training several times at home.

When using the VR set, make sure the patient is logged in to the practitioner's dashboard before the session starts!

Goals

1. Check whether the patient can start and play Reducept well
2. Discuss spinal cord education
3. Discuss brain education
4. Set up a follow-up plan for Reducept

Start, follow-up discussions of the exercises

Start the session by discussing whether applying Reducept succeeded as planned.

Some questions to consider in this case with your patient:

- *How did you experience playing with Reducept?*
- *Did you use the membership page? If yes, which information did you gather?*
- *What new insights into pain has it given you?*

If the patient has questions, this is a good time to use your knowledge of chronic pain in helping the patient with any problems they may have!

On to the spinal cord and brain:

After discussing the exercises, have the patient run through the spinal cord and brain if necessary. If the patient has been able to practice this more often at home or on location, you can choose not to go through this during the session. If you choose to go through it again during the session, ask the patient to take the glasses off after playing the spinal cord.

Take the time to discuss this part of the training with your patient.

- *What did you learn about pain in this part of the training?*
- *What does this mean for you?*
- *Can you translate this knowledge into (a situation) in your own life?*
- *What could you change in your life to get a better grip on your pain?*

What are the most important points in spinal cord education?

- All nerve bundles come together in your back.
- Threat-related stimuli on the 'main track' come together from all the areas in your entire body.
- Before a threat-related stimulus on this 'main track' comes to the brain, it must pass through a gate.
- The gates allow in fewer threat-related stimuli if you feel positive and/or relaxed.
- If you feel tense, the gates let more stimuli through and there's a greater chance for pain.



By undertaking positive and relaxed activities in your daily life, you, as a patient, will be able to get a better grip on pain complaints.

What are the most important points in brain education?

- The more often you have pain, the stronger your brain responds to pain, which is called central sensitisation. The networks of brain cells are getting better at creating (chain) reactions that cause pain.
- The ultimate feeling of pain arises in your brain.
- If we do something a lot, we get better at it. If you skate a lot, you can get better and better. Unfortunately, this also works with pain, but in a negative way. If you have a lot of pain, the brain responds more and more to threat-related stimuli with regard to pain.
- Your brain is flexible and can also become 'less effective' in creating pain.

Get started!

Making an appointment about possible training at the practice/home

- Diary: Briefly record each experience: what did the patient learn?
- In what ways can the patient increase the number of activities in daily life that give relaxation and pleasure? Are there hobbies that could be taken up again, more exercise, social contacts?
- Has the patient looked at the membership page and perhaps started the pain course? Are there exercises that fit in with current treatment, and what exercises could be planned?
 - If your patient is taking the online pain course, they can view the second part and possibly use the workbook.





Session 3

The third Reducept session takes approximately 30 minutes. To save time, it can be decided not to let the patient play Reducept during the session and only focus on the education and follow-up planning. Especially if the patient has already gone through the entire training at home several times or trains at another time at the practice/institution, this is recommended.

When using the VR set, make sure the patient is logged into the practitioner's dashboard before the session starts!

Goals

1. Educate about the alarm centre
2. Educate control room
3. Formulate follow-up plan Reducept

Start, review exercises

Start the session by discussing whether you succeeded in applying Reducept as planned.

Some questions to consider with your patient in this case:

What new things have you learned about pain recently?

Have you used the membership page? If so, what information did you take in?

Are there adjustments you have made in your life?

In what way could Reducept's knowledge and exercises have (more) influence in your life?

When asked by the patient, it is a good time to connect with your own knowledge of chronic pain and/or the patient's issues.

On to the alarm centre and control room:

After discussing the exercises, have the patient walk through the alarm centre and control room, if necessary. If the patient has been able to practice this at home or on location before, you may choose not to go through this during the session the control room exercise, in particular, is time-consuming.

Take the time to discuss this part of the training with your patient.

- *What did you learn about pain in this part of the training?*
- *What does this mean to you?*
- *Can you translate this knowledge to (a situation in) your own life?*
- *What could you change in your life to get a better grip on your pain?*

What are the most important points from the education of the alarm centre?

- The alarm centre in the brain is where all stimuli arrive. It is a distribution centre where it is determined how many stimuli go on to the brain.
- The alarm centre can react more sensitively and pass on many stimuli, but it can also decide not to.
- How you feel, how you think about pain, the way you direct your attention and what you do (think, feel, act, pay attention) affect the sensitivity of your alert centre.



What are the key points in educating the control room?

- We call the control room the "inside" of the alarm centre.
- With the exercises you do here, you influence the degree to which stimuli are transmitted from the alarm centre.
- The exercises you do here are diverse. You learn to make better contact with your body, recognize and let go of negative thoughts, or focus on your breathing. On the member's page, you will find more of these kinds of exercises, which you can do more often if you wish.
- Every time you practice, you train your brain and create new connections in your brain. The more these new connections are used, the stronger they become over time.
- In this way, you slowly create new paths in your brain, which are different from the 'pain paths' that have been there for a long time.
- Positive thoughts can be very helpful on difficult thoughts. What positive thoughts work well for your patient? You may want to take time together to work these out.

Get to work!

Make an appointment for training at the practice/home.

- Diary: each time make a short note of the experience: what has the patient learned?
- In what ways can the patient increase the number of activities in daily life that take the attention away from the pain? Are there hobbies that could be picked up again, more exercise, social contacts?
- Has the patient looked at the membership page and perhaps started the pain course? Are there exercises that fit in with current treatment, and what exercises could be planned?
 - If your patient is taking the online pain course, they can view the third section and use the workbook if necessary.



Sessions 4-5

If it has not been possible to follow the planning of session 3 as described, or if there are still technical problems, spend time on that first.

These later sessions have a flexible layout. If all goes well, the patient now knows how Reducept works. The full 30 minutes are not (always) necessary for these sessions. In these sessions, you can take a step up in education with patients if necessary, focus on changing behaviour in daily life and discuss with the patient how Reducept will be used in addition to any other treatments.

Discover how Reducept connects to your treatment and enhances your results. Some examples of practitioners who have been working with Reducept for some time:

- Let patients play Reducept for a practice session.
- Make patients move around while playing Reducept, to show that attention and distraction are important ways to reduce the influence of pain.
- Have patients play on the Reducept exercise bike and discuss it afterwards. Did it go harder or easier?
- Discuss with a patient which exercises, articles or components of the online pain course are appropriate for treatment at this time. In what ways can the patient work with his or her pain at home?

Goals

1. Check if pain education is understood and supplement this with your own knowledge
2. Find a nice way for the patient to use Reducept
3. Teach the patient to use new skills in daily life

Start:

Start the session by discussing whether you have succeeded in applying Reducept as planned.

Tip: I (Louis) sometimes get the question as to what I do if someone has not, or hardly, trained at all. First, I always check the practical side, "do they know how everything works?", and then supplement this knowledge where necessary, because the problem isn't usually there. Then I start the conversation with several things in mind: I would like the patient to practice, but it's not a 'must'.

I'm not going to discuss with someone "why it all went so bad". That's putting a lot of time and energy into the negative and takes so much energy that I can no longer properly treat the next (but motivated) patient.

I ask if they're sure they want to continue. Most of the time I push this point through a bit, taking on a somewhat questionable attitude myself. I want to hear the patient say several times that they really want to continue (or not, then that's ok too!).

If the patient has said on several occasions that they want to continue, I will ask them to come up with a proposal for how this will work. I only ask questions (How often would you like to train? Is that feasible? How are you going to do it? How do you remind yourself?). Continue until your patient has a good plan! That's when I express my sincere appreciation.



I have three strategies for not rewarding procrastination too much:

1. Pay little attention to it and see it as a fact. I do not argue about what are good reasons or not.
2. I ask, without judging the reasons, carefully how things will work out the next time. Possibly I may repeat that at the next session. Doing this extensively makes many patients realise that it's perhaps not necessary (or if so, that's also fine).
3. If I succeed, I will close the session earlier. I sincerely say that I hope it will succeed now and I express my confidence, but also let it be known that there is not much to talk about for now (because there has been no progress).

Some questions to consider with your patient:

- *What did you experience by playing Reducept?*
- *What insights has Reducept given you?*
- *What did you learn by playing Reducept?*

Connect with the questions with your own knowledge and examples! If it works, it often works well to answer questions in a very 'practical' way. Do an exercise while focusing on relaxation, bring attention to the pain during certain movements, or play the patient's favourite music during the consultation. What is happening? How can you link that to pain education? You can also find inspiration for exercises and education here at www.reducept.com/blog!

Usage/use of Reducept:

Discuss with your patient whether they are satisfied with the extent to which you can train with Reducept. Is it necessary to adjust the schedule?

Broader use of Reducept Skills:

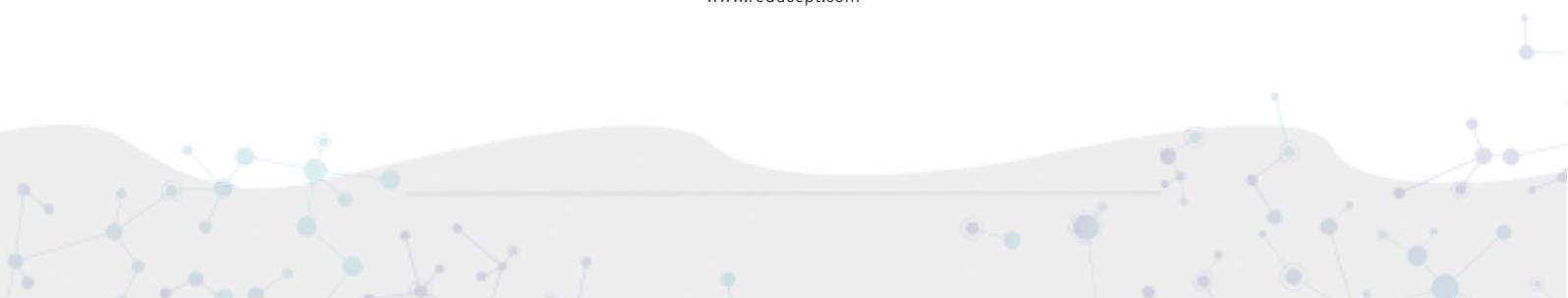
Patients who train with Reducept acquire certain skills. Regular help is needed to realise that these skills can also be used outside of Virtual Reality. This includes the following skills:

- Imagine that you 'shoot' the threat-related stimuli away (outside of the VR!)
- Breathe deeply and calmly, possibly with a visualisation, to relax
- Shift your attention if you notice that you are dealing with pain in a negative way
- Use distraction at times of (severe) pain
- Create helpful thoughts based on knowledge about pain
- Optimise your own environment: use music to stimulate feelings of peace or positivity
- Expand positive activities into your daily life

Check with your patient as to what extent they (re)learn these skills. How can they incorporate these skills in daily life? At what times?

You can take a closer look at the following skills with your patient:

Positive thinking: if necessary, spend time preparing sentences that can help your patient. Patients often have many negative (and unrealistic) ideas about pain. What did the patient learn from this education that they would like to remind themselves of when things are not going well?





Examples:

- *That I now feel pain has nothing to do with damage*
- *I can control how I react to my pain*
- *My brain is trying to protect me too much so that I now feel pain*
- *I can also undertake fun activities with pain*

There are various options for patients to be reminded of this. Some patients set reminders on their phones with helping thoughts, others write them on a note that they put somewhere or hang up in a visible place. The patient can also make the intention to consciously evoke thoughts in certain situations.

Visualise: the patient makes the intention to close their eyes briefly in moments of pain and imagine that they are neutralising the threat-related stimuli.

Relax:

Make a schedule to relax, possibly with reminders on the phone!

Ensure adequate relaxation at home/at work possibly with accompanying relaxation exercises or Reducept.

Shift attention:

At times when the patient notices that they are giving attention to their pain, actively shift the attention to another sense.

Possibly even picking up a working memory task (counting trees, remembering license plates, doing mathematical equations, etc.), and alternating this with focusing on the pain.

Get started!

Make an appointment regarding potential training at the practice.

- **Diary:** Briefly write down the experience each time: what did the patient learn?
- **Acquired skills:** Which skills can the patient use and when? Note specific situations in which the patient wants to practice these skills.
- **Are there specific areas of focus where a patient can still make progress?** The member page of reducept is designed in such a way that exercises focused on thinking, doing, feeling and attention are accessible by theme.
 - A patient can watch the last session of the pain course at home and apply the workbook additionally.





Closing session

After a few weeks of practice and sessions 3-5 counselling, the patient is expected to have mastered both the pain education and pain coping skills. In many cases, patients show a preference for a certain strategy within Reducept to deal with their pain more efficiently.

Tip: as stated above, many patients develop a preference for a certain strategy. Certainly, if this strategy is satisfactory, the motivation to use the other strategies may be less strong. I (Louis) do offer the strategies myself, but do not force patients to make them all their own. It is often difficult enough to change even just a few habits in our lives!

Goals

1. Discuss (added) value of using Reducept
2. Check education and use of skills
3. Relapse prevention
4. Complete

Using Reducept

Consider briefly using Reducept over the last period. What has perhaps changed in recent weeks?

Education and use of skills

Together with the patient, consider the knowledge and skills that have been developed through treatment and use of Reducept. Some questions to consider:

Can the patient reflect on the moments when they played Reducept and how they developed skills and/or regulated themselves in a different way than before?

What skills has the patient developed that can (also) be used outside of VR?

Can the patient state what they have learned about pain?

Has this knowledge led to adjustments in their daily life? If yes, which ones?

Does the patient need more treatment/skills to better deal with their pain?

No going back!

Reflecting on the acquired skills builds a nice bridge for drawing up a 'grip on my pain plan' (or another creative name). One possibility is to apply the traffic light method:

With the traffic light method, the patient describes in three zones (green, yellow, red) what they are doing and/or what they are thinking. This is therefore explicitly not about the pain score. The patient then describes per zone what they can do to improve, or must continue to do to remain where they're at. A patient with a high pain score can still be 'in the green' because they remain active, do their exercises and make use of helpful thoughts.



Example:

Yellow:

How do I recognise it: when I go to yellow, I practice less and less. I no longer do my relaxation exercise every day and I do not go for a walk if my pain increases. The household is slowly deteriorating and I start cancelling appointments because I don't feel like it.

How can I make sure that I am on top of this?

Keep practising differently every day. Also walking when I am in pain and possibly taking it a bit easier. Keep appointments. Possibly doing the housekeeping in stages and possibly asking my neighbour for help.

If the patient does go into the red, one of the steps to be taken may be that they will contact you again!

Discuss the traffic light method, or any other method you prefer, with the patient. Check whether it is possible to sketch concrete situations so that the patient can recognise when things are not going well and can then make use of helpful thoughts and/or take certain actions.

The patient takes this home, preferably to go through it regularly. Encourage the patient to also discuss the content with their partner, partners often see more quickly than anyone else when patients are not feeling so well (although it is a pitfall for many partners to take too much out of the hands of the patient!).

Tip: you may already see what's coming. Have you just drawn up a wonderful plan with your patient, which will probably only be taken out of their bag, crumpled, in a few weeks... How will your patient remember what you have prepared?

Great for a creative brainstorming session with your patient, and a few creative examples below:

- Write a song, together with your patient, in a well-known melody, about the signals they recognise in the yellow and red zones and what to do about it.
- Print the positive activities that the patient wants to continue to undertake on objects you see or use every day. Refrigerator magnets, mugs, plates, or a tattoo.
- Set up a savings system, for example, walking every time yields €10 for the cinema pot. Enough saved, then go (with the whole family!) to the cinema!
- Tell others about your intentions. Share these intentions with friends, family, colleagues. Or, keep track of your progress (on social media).
- Write a recipe for pain. A funny way to write down exactly the things that are needed to be sure that the pain increases.
- Be creative with your patient!

Completion: concluding treatment following the guidelines of your institution in terms of DBC, closing letter, etc.

