

Guide to “Treat to Target” for Rheumatoid Arthritis

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# Understanding T2T

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# Introduction

## Let's walk through this targeted way of treating rheumatoid arthritis (RA): Treat to Target (T2T).

In the past, the key focus when treating RA was to reduce the symptoms of the disease, e.g. pain and swelling. However, to truly prevent occurrence or progression of disability and joint damage, states known as 'remission' or 'low disease activity' should be achieved. The currently available therapies and treatment approaches allow attaining this goal in many patients.

As a result, rheumatologists from around the world have developed a new way of treating RA which they have called 'Treat to Target (T2T)'. In T2T, the 'target' is to help patients reach one of the states known as 'clinical remission' or 'low disease activity'. When a RA patient reaches one of these states, especially remission, it means that most signs of inflammation are absent and additional damage to the joints is minimized or prevented. As part of T2T, healthcare professionals choose a treatment plan that helps you to achieve the best outcome.

The goal of this booklet is to help you understand how T2T can help in managing your RA. T2T is comprised of 4 key principles and 10 points aimed at helping you and your healthcare professional implement it. While these T2T principles and points are general in nature, they should be adapted by your healthcare professional to meet your individual situation. Understanding the T2T approach to RA will help you to discuss your treatment strategy with your healthcare professional and to make sure that you are getting the most appropriate treatment.

**You can use this booklet as a guide to achieve this.**

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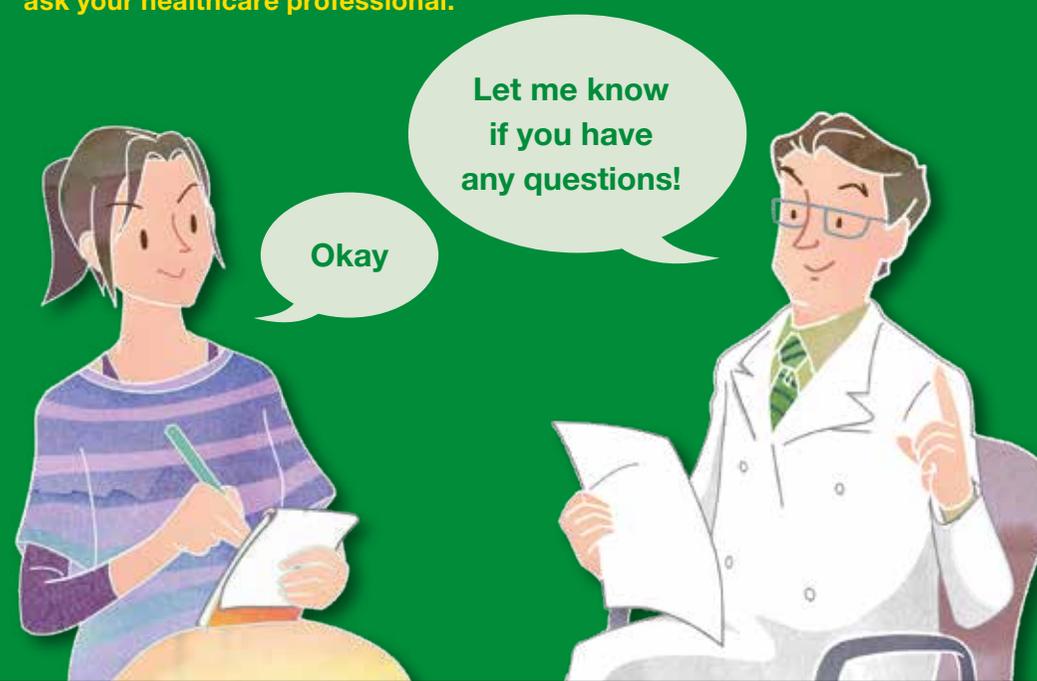
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This booklet is based on the following publication: Treating rheumatoid arthritis to target: the patient version of the international recommendations; M. de Wit, *et al. Ann Rheum Dis* 2011;**70**:891–895.

# Contents

What is Rheumatoid Arthritis? .....	4
What is T2T? .....	6
4 Key Principles of Treat to Target .....	10
10 Points to Note for Treat to Target .....	16
Glossary .....	34
My Targets .....	37

**If you have any questions or concerns, ask your healthcare professional.**



# What is Rheumatoid Arthritis?

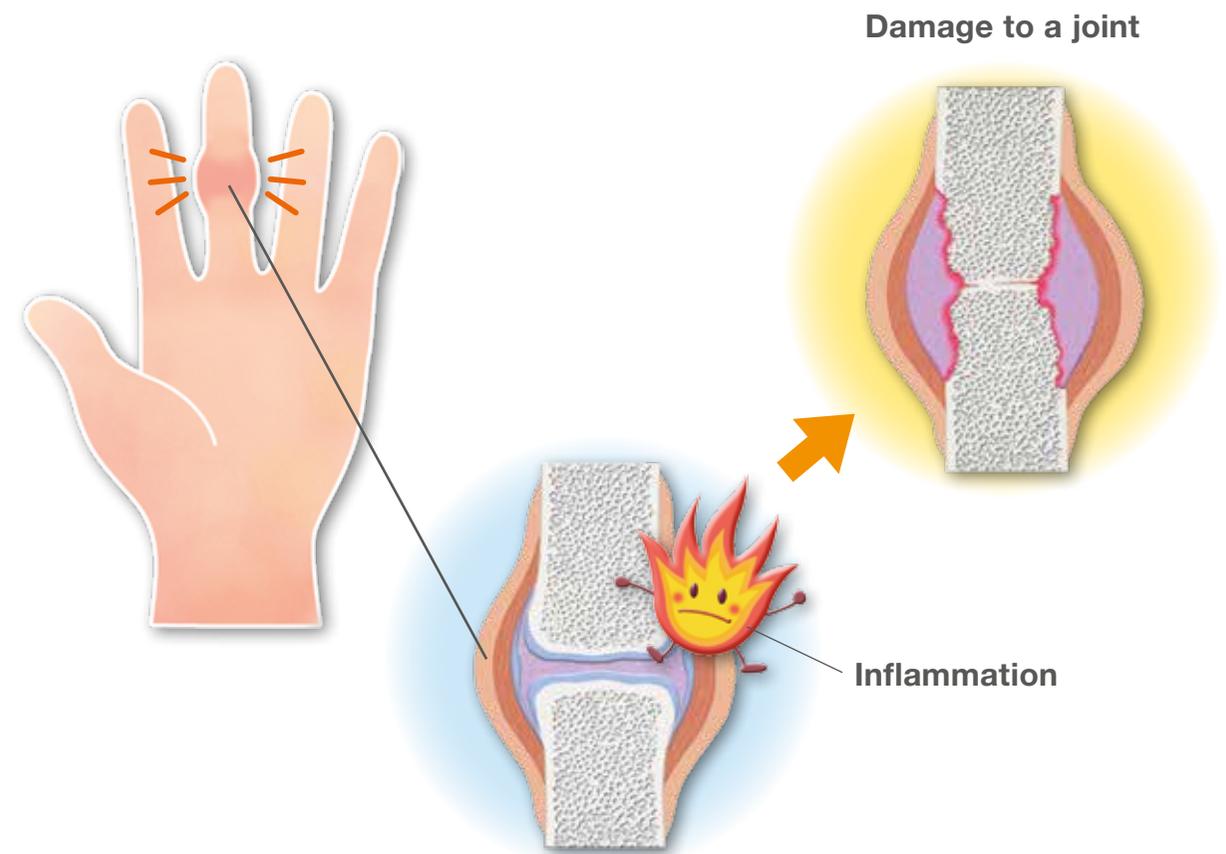
## RA can be a challenge.

Rheumatoid Arthritis (RA) is a chronic disease that causes pain, stiffness, swelling and loss of function in the joints. It occurs when your immune system, the system that protects your body from outside harm, mistakenly starts attacking healthy tissue.

This causes inflammation that leads to swelling in the joints, making them progressively less and less mobile. If not managed properly, over time, RA can cause joint damage and can even result in permanent joint destruction preventing you from doing the things you love.

## Joint damage can start early.

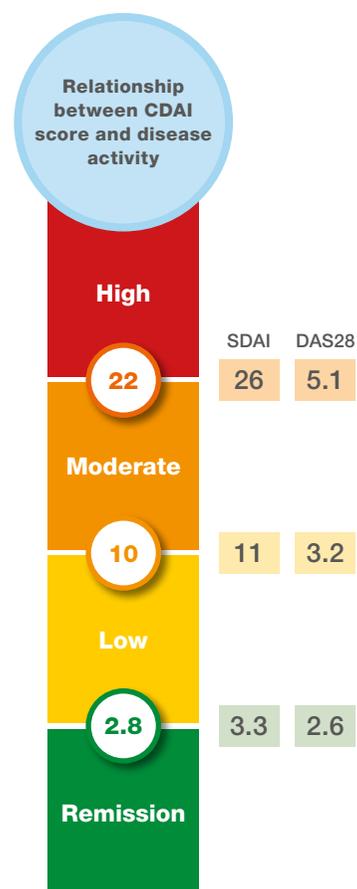
Researchers studying RA now believe that damage to joints begins during the first year, or two, that a person has the disease. In addition, a study has found that more than 50% of patients with RA had joint damage on X-ray 2 years after their symptoms began. This is why early diagnosis is very important, so that you and your healthcare professional can determine the best RA management plan for you.



# What is T2T?

## To begin with, let's understand the basics of 'Treat to Target'.

T2T is about setting a clear treatment target that can be measured (e.g. a number). Working together with patient representatives and various international medical organizations such as EULAR (European League Against Rheumatism) and ACR (American College of Rheumatology), the T2T experts have recommended treating to target when managing RA because, by regularly assessing the patient's disease status and changing the treatment to reach a target, further joint damage can be prevented.



## A measure of your disease activity

### How do you set the target for treatment?

In RA, disease activity (signs and symptoms of inflammation, e.g. pain and swelling) changes over time. If disease activity stays high, there will be ongoing damage to the joints. High disease activity is like a fire that destroys the joints - this fire needs to be extinguished to prevent joint damage. Therefore, T2T recommends using a formula known as the 'composite measure for disease activity' so healthcare practitioners can work out (score) your disease activity.

**Major measures for disease activity include CDAI\*, SDAI\*, and DAS28\*.**

### What can you learn from composite measures of disease activity?

- RA symptoms can vary between and even within patients. Composite measures of activity include and combine several aspects of the disease to better reflect its totality.
- The level of disease activity can be expressed using a number (score).
- Comparing the score before and after treatment allows healthcare professionals to assess if your treatment is working. This is useful for developing a treatment plan.

### Major composite measures for disease activity of RA

CDAI Clinical Disease Activity Index	SDAI Simplified Disease Activity Index	DAS28 Disease Activity Score
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**Example of a treatment model using CDAI**

**Before treatment**  
CDAI score: **45**  
Disease activity is high

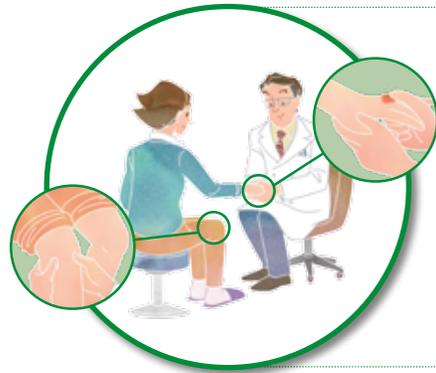
**6 months after treatment**  
CDAI score: **5.6**  
Disease activity has dropped

The treatment plan is working well and should be continued.

\* See pages 8 and 9 for the method of calculating and evaluating DAS28, SDAI and CDAI scores.

## How healthcare professionals assess and calculate disease activity

CDAI, SDAI and DAS28 scores are calculated based on the following assessments.



### 1 Assessment of joints by your healthcare professional

The healthcare professional physically examines 28 joints in the body, including those in the hands, elbows, shoulders and knees to determine the following:

- Number of joints that are painful under light pressure
- Number of joints that are swollen

### 2 Your general self assessment

You make a self assessment of your physical condition based on a 0-100mm (=10cm) scale (Visual Analogue Scale: VAS\*).

### 3 General assessment by your healthcare professional

The healthcare professional assesses your physical and systemic conditions based on VAS.

### 4 Blood test

The healthcare professional measures the extent of inflammation based on your erythrocyte sedimentation rate (ESR)\* or C-reactive protein (CRP)\* level.

Factors for calculating CDAI : 1 + 2 + 3

Factors for calculating SDAI : 1 + 2 + 3 + 4

Factors for calculating DAS28 : 1 + 2 + 4

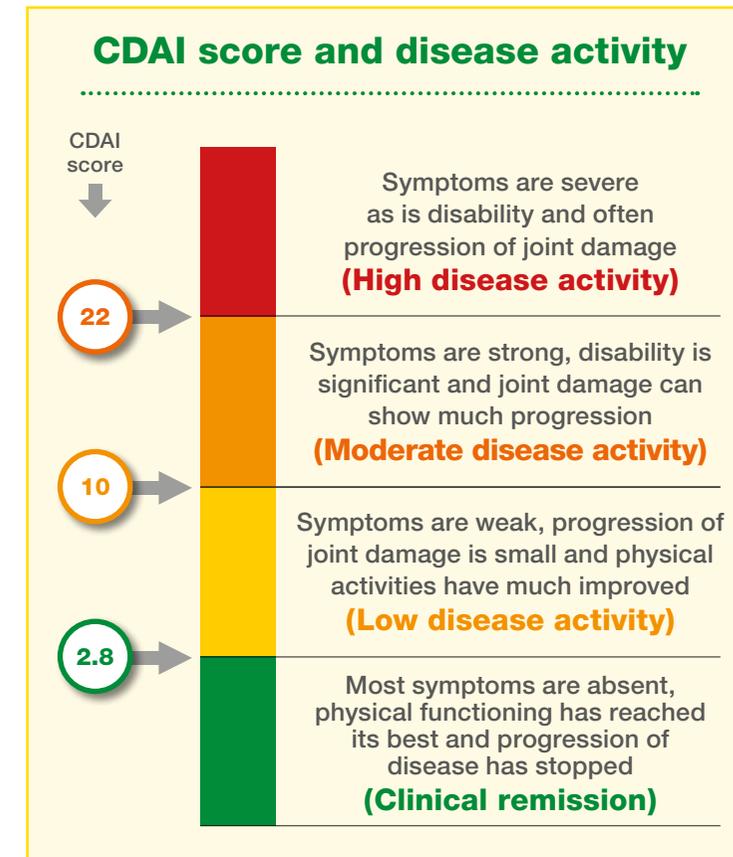
Each score is calculated by putting these values into a formula. For SDAI and CDAI use of a calculator is not needed.



\* See the Glossary (VAS, page 36; ESR, page 35; CRP, page 34)

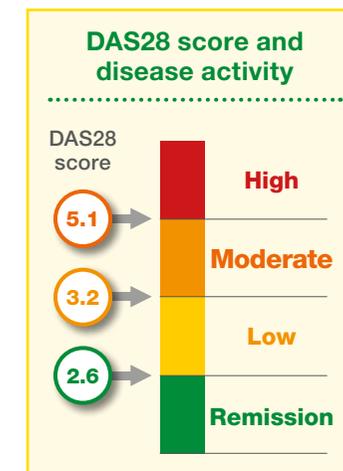
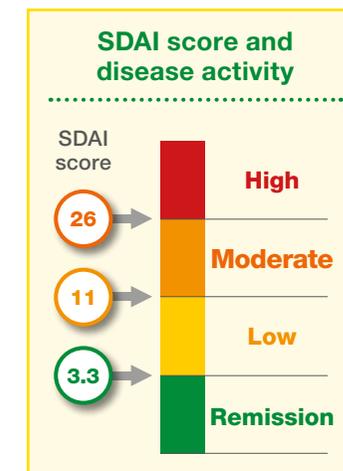
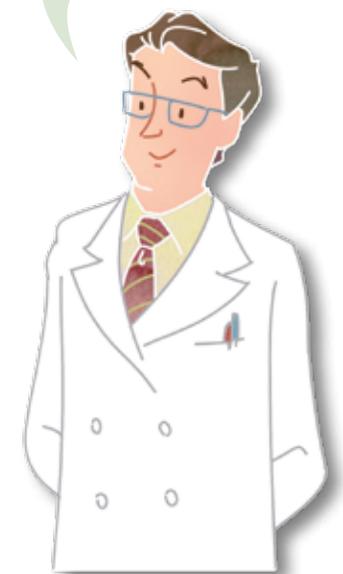
## Assessment of scores and disease activity

Disease activity scores change over time and can be reduced with effective therapy. A low score means that the disease activity is low and symptoms are less.



Because each measure is calculated by a different formula, the scores and disease activity levels may vary depending on the measure used.

Ask your healthcare professional which measure is used.



## 4 Key Principles of Treat to Target

This section will guide you through **the 4 key principles of Treat to Target** in the treatment of RA.

The key principles should serve as guidance only because you and your healthcare professional should decide what is the most appropriate approach based on your individual situation.



These are the key principles of T2T. Let's look at each principle, one at a time from A to D.

### 4 Key Principles of Treat to Target

- A** Decisions regarding the treatment of RA must be made by the patient and rheumatologist together.

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- B** The most important goal of treatment is to maximise long-term *health-related quality of life*. This can be achieved through control of disease symptoms like pain, inflammation, stiffness and fatigue; prevention of damage to joints and bones; regaining *normal function* and *participation* in daily-life activities.

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- C** The most important way to achieve these goals is to stop joint *inflammation*.

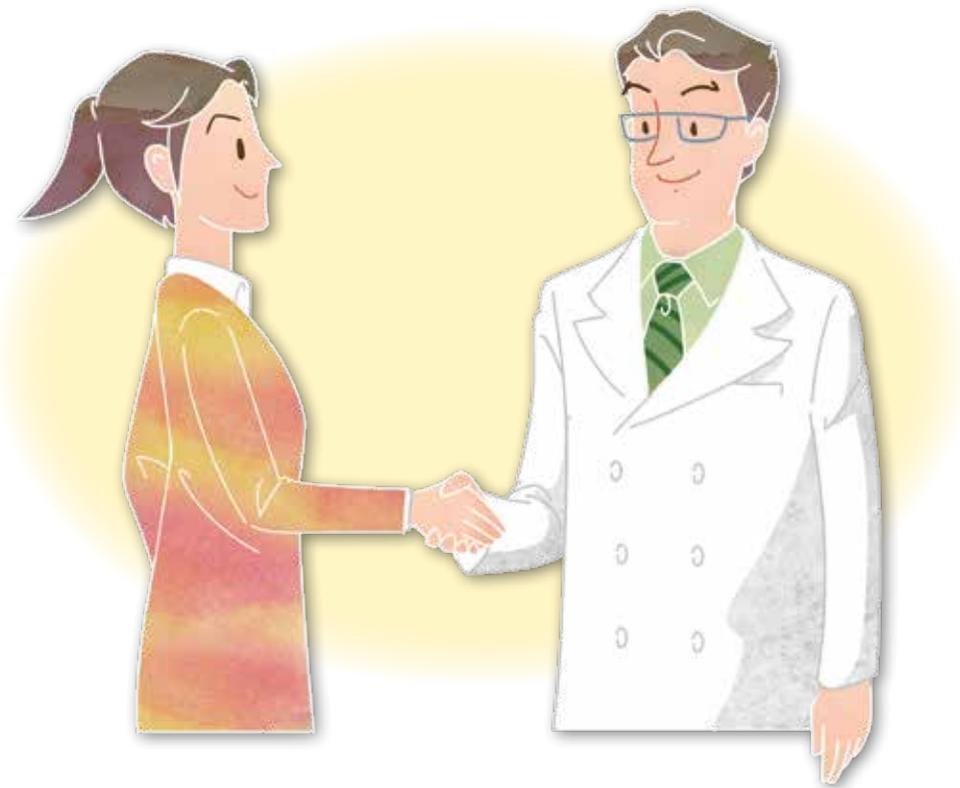
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- D** Treatment toward a clear *target of disease activity* gives the best results in RA. This can be achieved by measuring disease activity and *adjusting therapy* if the target is not achieved.

The 4 key principles of Treat to Target are based on the following publication:  
Treating rheumatoid arthritis to target: the patient version of the international recommendations; M. de Wit, *et al. Ann Rheum Dis* 2011;**70**:891–895

**A**

**Decisions regarding the treatment of RA must be made by the patient and rheumatologist together.**



**Remember!**

- It is particularly important to talk to your healthcare professional about the following points:
- What treatment target should be achieved,
  - What different treatment methods there are to achieve the target,
  - What drug options are available.

**B**

**The most important goal of treatment is to maximise long-term *health-related quality of life*. This can be achieved through control of disease symptoms like pain, inflammation, stiffness and fatigue; prevention of damage to joints and bones; regaining *normal function* and *participation* in daily-life activities.**



**Remember!**

With effective treatments, it will be possible for you to maintain a better QoL (Quality of Life) and participate in social activities, particularly at early stages of RA but also at late stages where much improvement is still possible.

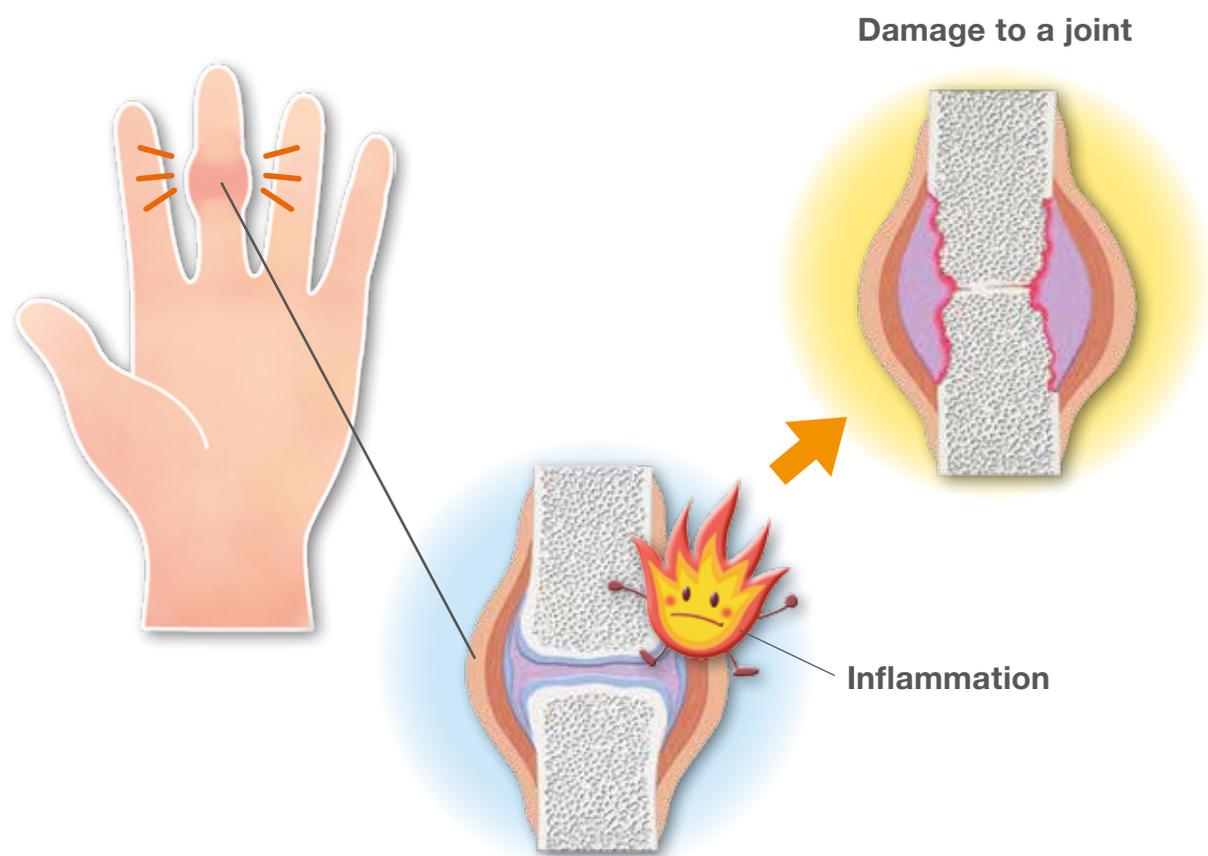
*Health-related quality of life:* Health-related quality of life refers directly to the impact of the disease on daily life.

*Normal function and participation:* The state where a person was before the disease started.

➔ Please see the Glossary for more details (page 34–36)

**C**

The most important way to achieve these goals is to stop joint *inflammation*.



**Remember!**

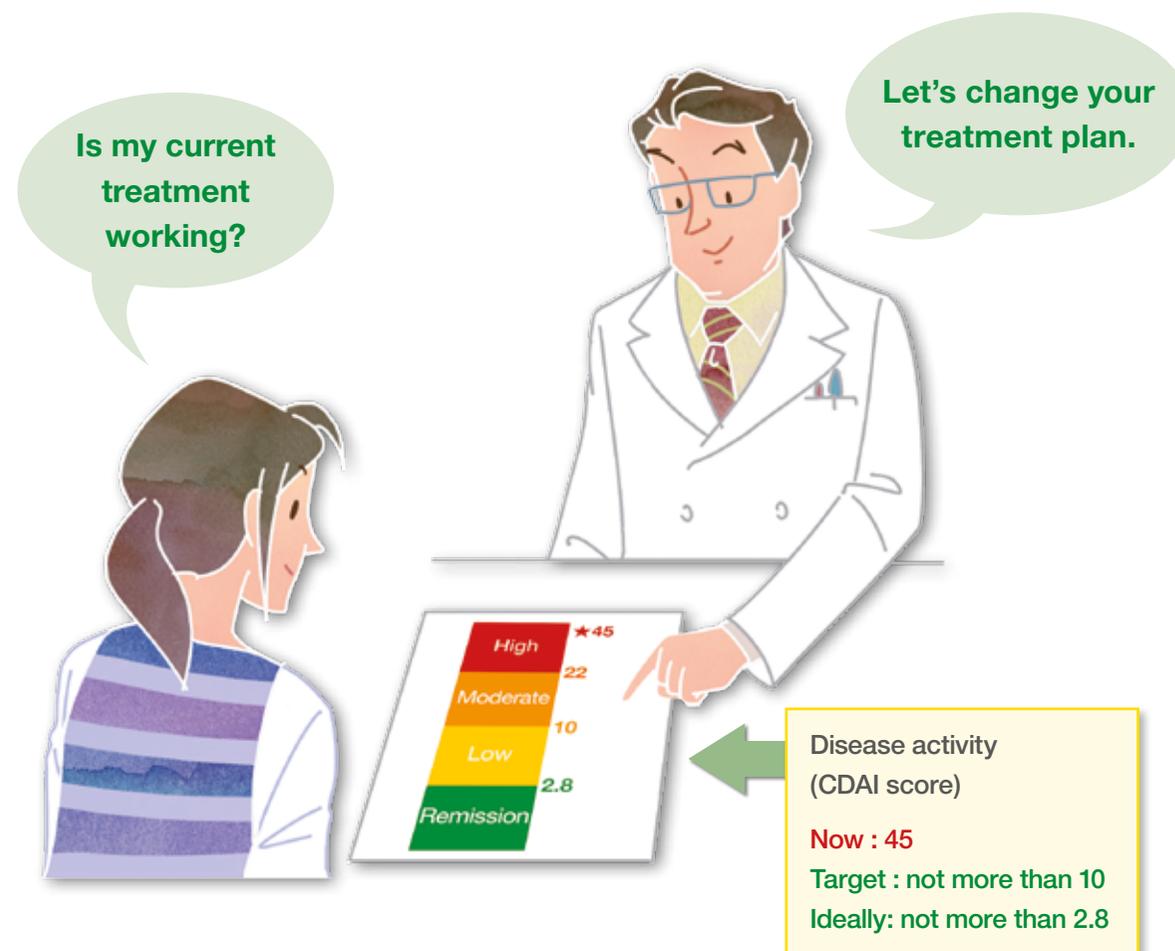
Inflammation of the joints is the main reason for your RA getting worse.

*Inflammation:* A reaction caused by cells of the immune system and their products (i.e., cytokines).

➔ Please see the Glossary for more details (page 34–36)

**D**

Treatment toward a clear *target of disease activity* gives the best results in RA. This can be achieved by measuring disease activity and *adjusting therapy* if the target is not achieved.



**Remember!**

When you do not reach your target, it must be considered to change the treatment plan.

*Disease activity:* Signs and symptoms caused by inflammation owing to RA.

*Adjusting therapy:* A change to the drug treatment

➔ Please see the Glossary for more details (page 34–36)

## 10 Points to Note for Treat to Target

The main goals of RA treatment are not only to simply reduce pain and swelling and control joint damage, but also - most importantly - to enable you to maintain your physical activities so that you can return to a healthier life.

This section introduces **the 10 points to note for Treat to Target**.

Again, the 10 points of T2T should serve as guidance only because you and your healthcare professional should decide what is the most appropriate approach based on your individual situation.

Here are the 10 points to note for Treat to Target.

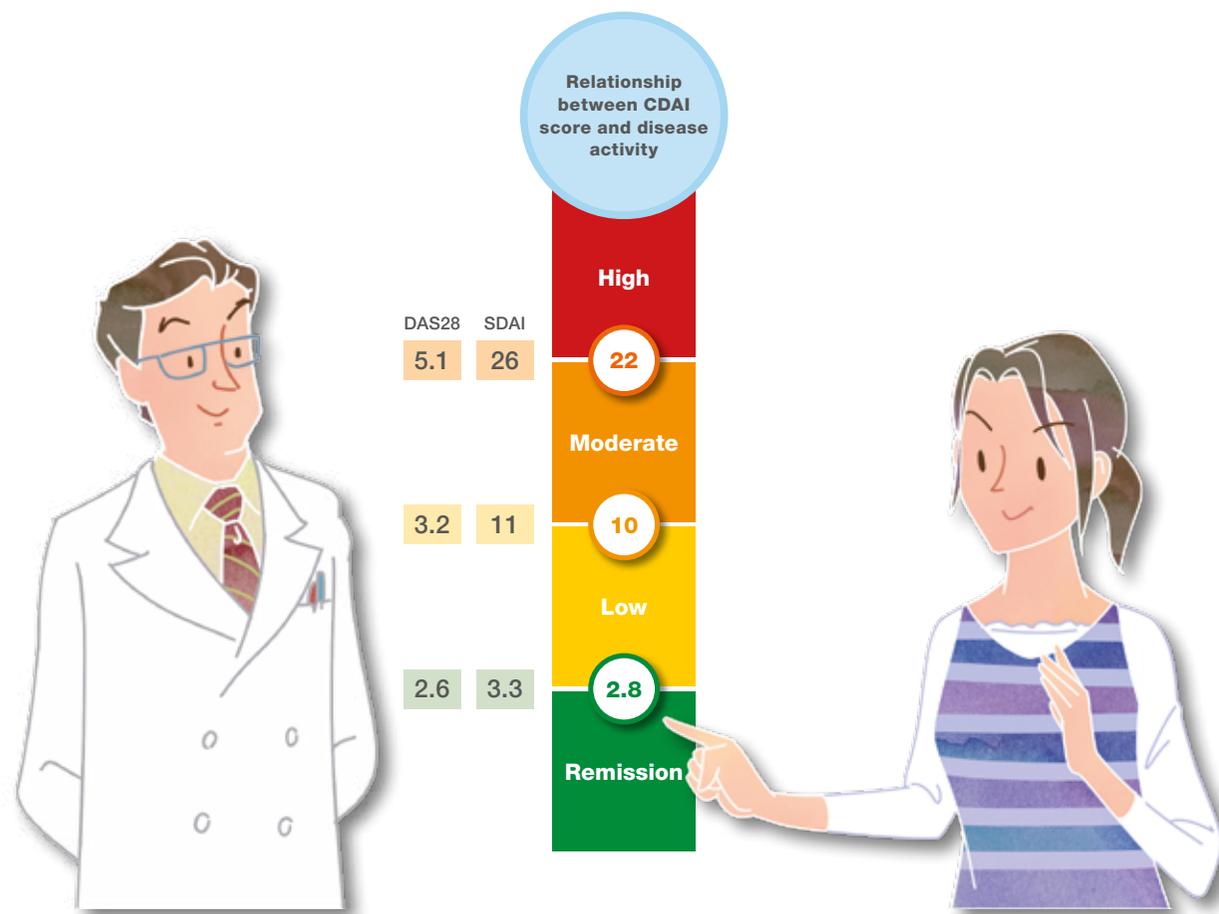


### 10 Points to Note for Treat to Target

- 1** The primary target of treatment of RA should be *clinical remission*.
- 2** Clinical remission means that *significant signs* and *symptoms* of the disease that are caused by inflammation are absent.
- 3** Although **remission** should be the target, it is not possible for some patients, in particular for those with long disease duration. Therefore, **low disease activity** may be an acceptable alternative.
- 4** Until the desired treatment target is reached, drug therapy should be *adjusted* at least every 3 months.
- 5** Disease activity must be measured and documented regularly. For patients with **high or moderate disease activity** this must be done every month. For patients in a *sustained* low disease activity state or remission, this can be done less frequently (eg, every 3–6 months).
- 6** Combined disease activity *measurements* which include joint examinations are needed in routine clinical practice to guide treatment decisions.
- 7** Besides disease activity treatment decisions in clinical practice should also consider damage to the joints and restrictions in activities of daily living.
- 8** The desired treatment target should be maintained throughout the remaining course of the disease.
- 9** Selecting the appropriate measurement of disease activity and target may be influenced by the individual situation: presence of other diseases, *patient related factors* or drug-related safety risks.
- 10** The patient has to be appropriately informed about the treatment target and the *strategy* planned to reach this target under the supervision of the rheumatologist.

\*The 10 points to note for Treat to Target are based on the following publication: Treating rheumatoid arthritis to target: the patient version of the international recommendations; M. de Wit, *et al. Ann Rheum Dis* 2011;**70**:891–895

**1** The primary target of treatment of RA should be *clinical remission*.



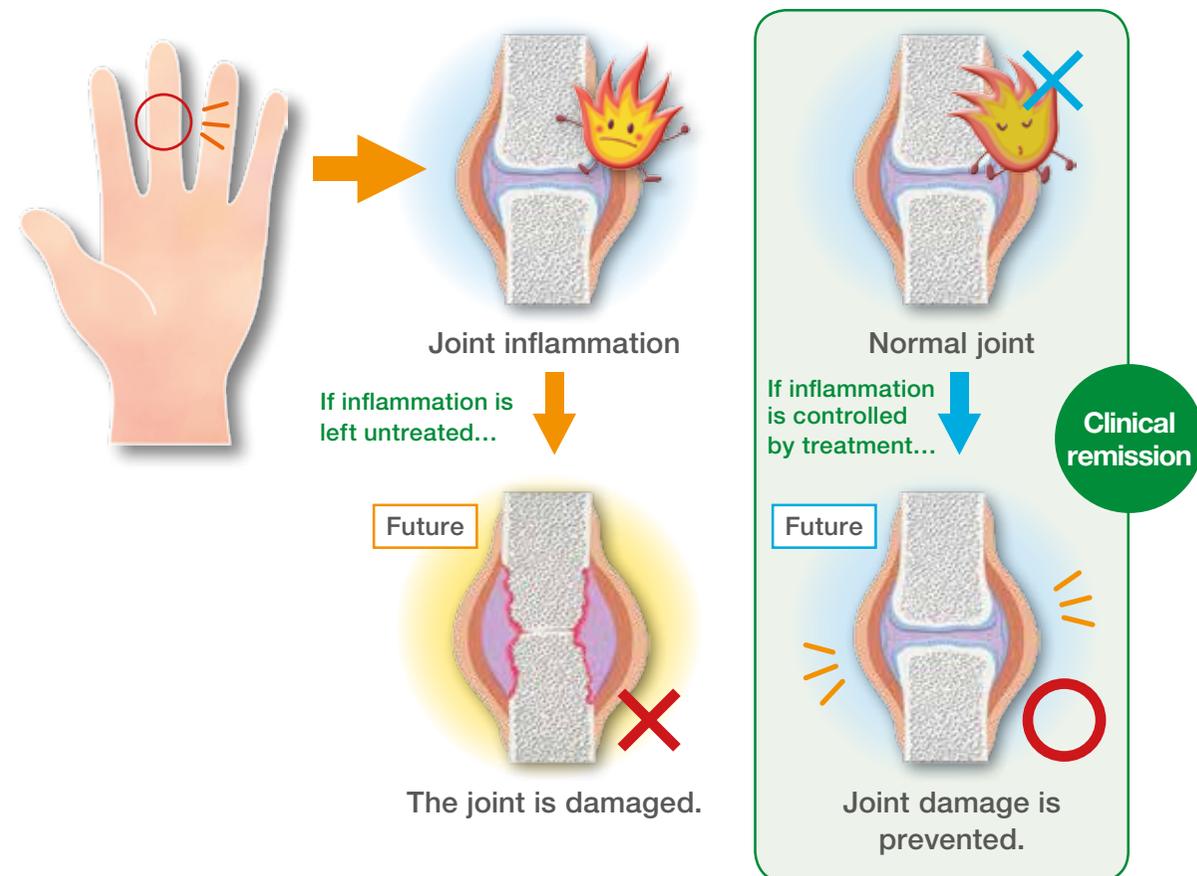
**Remember!**

**Today, remission can be an achievable treatment goal, especially for patients with early RA.**

If clinical remission is achieved, you have reached the best possible state where further damage to your joints is prevented and you return to the best state of activities of daily living that can be reached for you at present.

*Clinical remission:* Most symptoms are absent and progression of disease has stopped.  
 → Please see the Glossary for more details (page 34–36)

**2** Clinical remission means that *significant signs and symptoms* of the disease that are caused by inflammation are absent.



**Remember!**

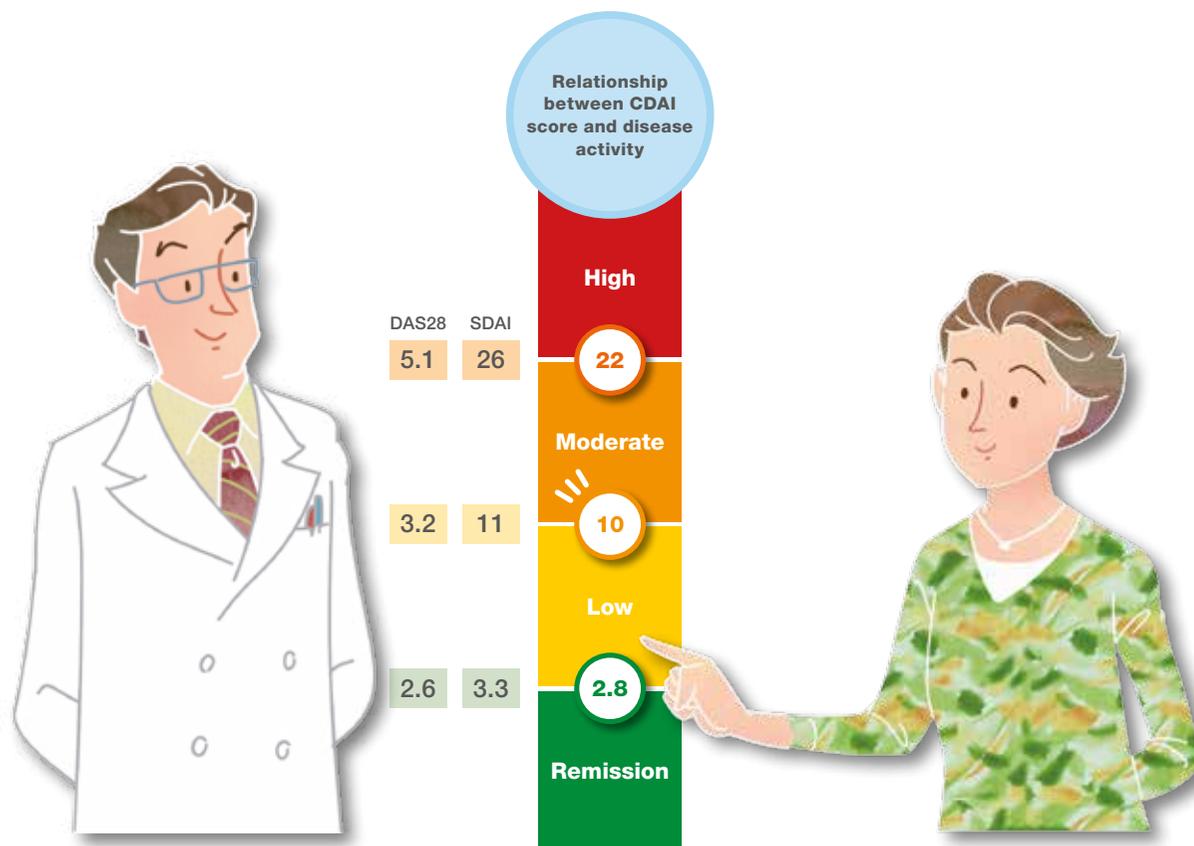
**Inflammation can cause joint damage and disability.**

In RA, inflammation can lead to joint damage and impair your daily life situation. If following treatment pain is relieved but inflammation is still present, treatment must be continued until most of the inflammation has gone away, because even if you do not feel it, inflammation may continue destroying your joints and thus impair your future well being.

*Signs:* Signs are the manifestations that can be observed by physical examination.  
*Symptoms:* Symptoms are manifestations of the disease as they are felt or experienced by the patient.  
 → Please see the Glossary for more details (page 34–36)

**3**

Although **remission** should be the target, it is not possible for some patients, in particular for those with long disease duration. Therefore, **low disease activity** may be an acceptable alternative.



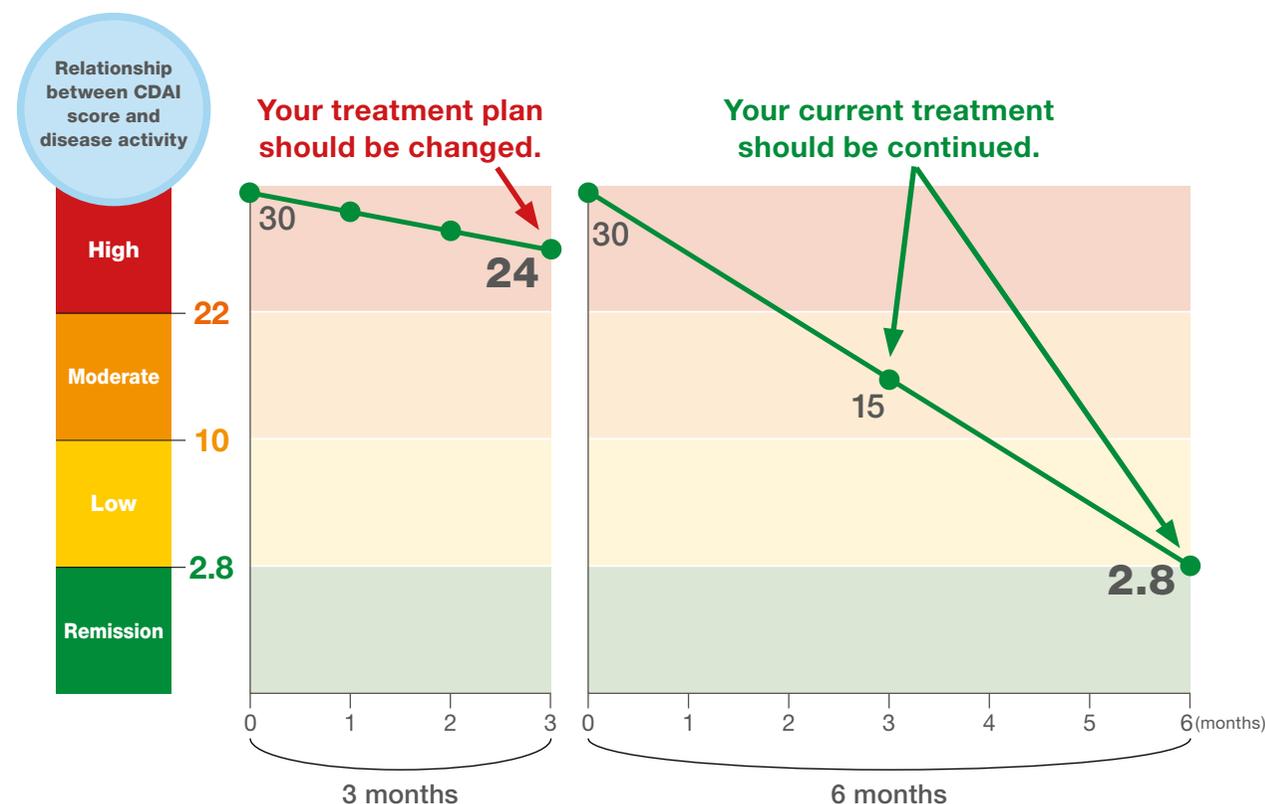
**Remember!**

**Do not allow disease activity to remain high.**

Do not allow your disease activity to remain in moderate to high levels. It is sometimes difficult to reach remission, especially if you have had the disease for a long time and several medications have failed to induce remission. In such cases, an important aim is the achievement of low disease activity instead. Once you have reached low disease activity, try to keep it at that level.

**4**

Until the desired treatment target is reached, drug therapy should be *adjusted\** at least every 3 months.



**Remember!**

**It is important for you and your healthcare professional to assess your treatment plan regularly.**

In order to reach the treatment target, your healthcare professional may regularly check your disease activity score. If you do not achieve important improvement of the score within 3 months or do not achieve the target of at least low disease activity within 6 months of starting treatment, ask your healthcare professional to think about changing your treatment plan.

\*This will depend on what you and your healthcare professional decide based on your individual situation.

**4**

Until the desired treatment target is reached, drug therapy should be *adjusted\** at least every 3 months.

**Q & A**

**Q: Why every 3 months?**

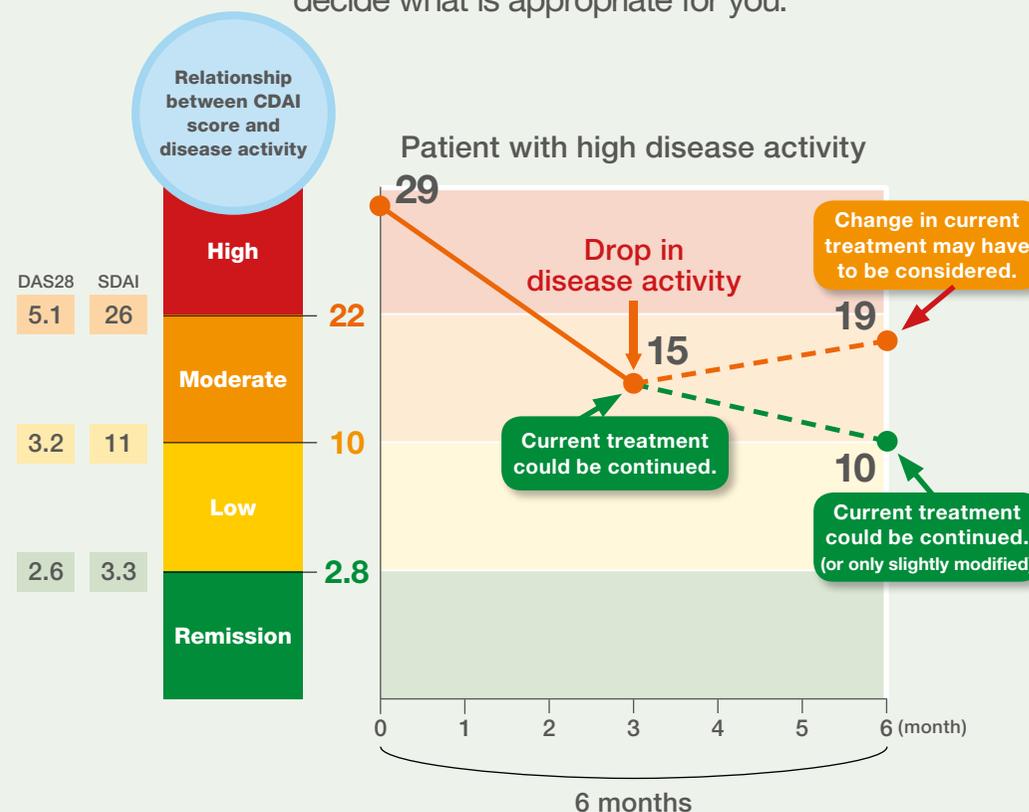
**A:** In general, it takes at least 3 months for a drug to have a good effect and 6 months to have a maximum effect. So 3 months is needed to find out if it is working and by 6 months the treatment target (at least low disease activity) should be reached.



**Q: If I do not reach my target after 3 months of treatment, do I definitely have to change my treatment plan?**



**A:** If you previously had high disease activity but after 3 months there was a drop in your disease activity, you may not have to change your treatment plan and the current treatment could be continued. Again, this may vary with your individual situation, so you and your healthcare professional have to decide what is appropriate for you.

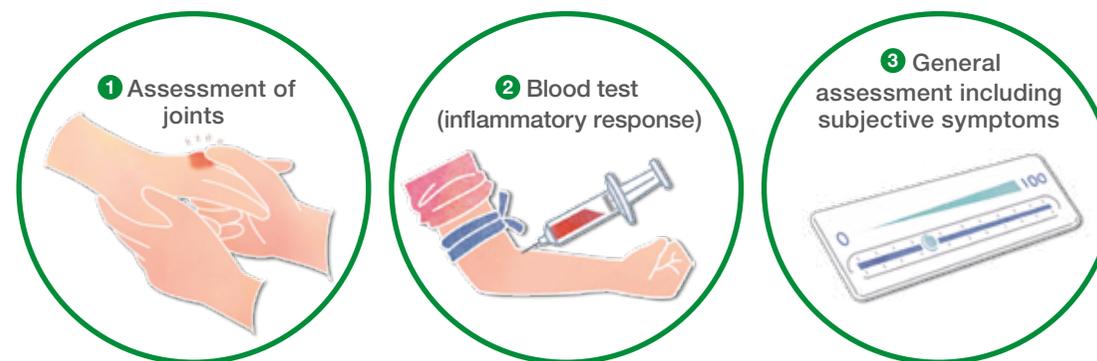


\*This will depend on what you and your healthcare professional decide based on your individual situation.

5

Disease activity must be measured and documented regularly. For patients with high or moderate disease activity this must be done every month. For patients in a *sustained* low disease activity state or remission, this can be done less frequently (eg, every 3–6 months).

Major features to assess disease activity

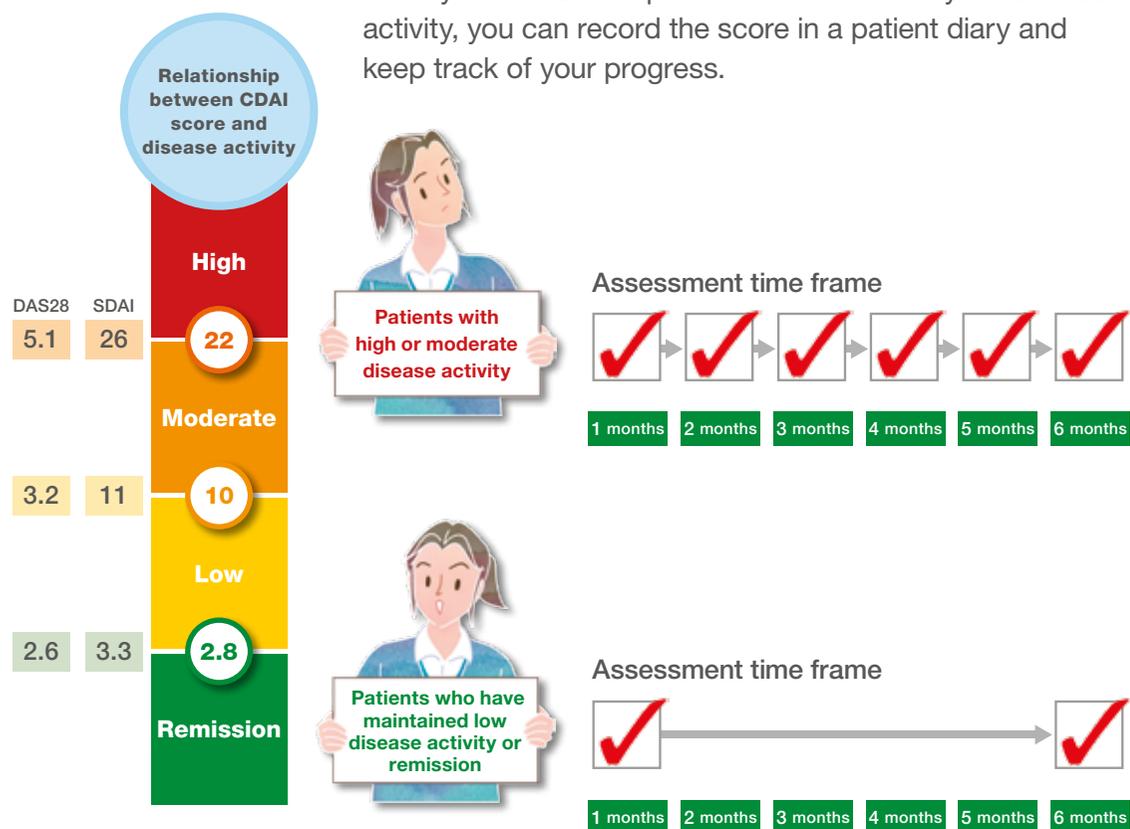


Once your healthcare professional measures your disease activity, you can record the score in a patient diary and keep track of your progress.

**Remember!**

Have regular assessments.

Once you reach the treatment target, it is important to maintain that level. Even after achieving and maintaining remission, your healthcare professional may still have regular assessments such as every 6 months to ensure your symptoms do not re-appear.



Q & A



**Q: Why do I need to be assessed every month if I have moderate or high disease activity?**



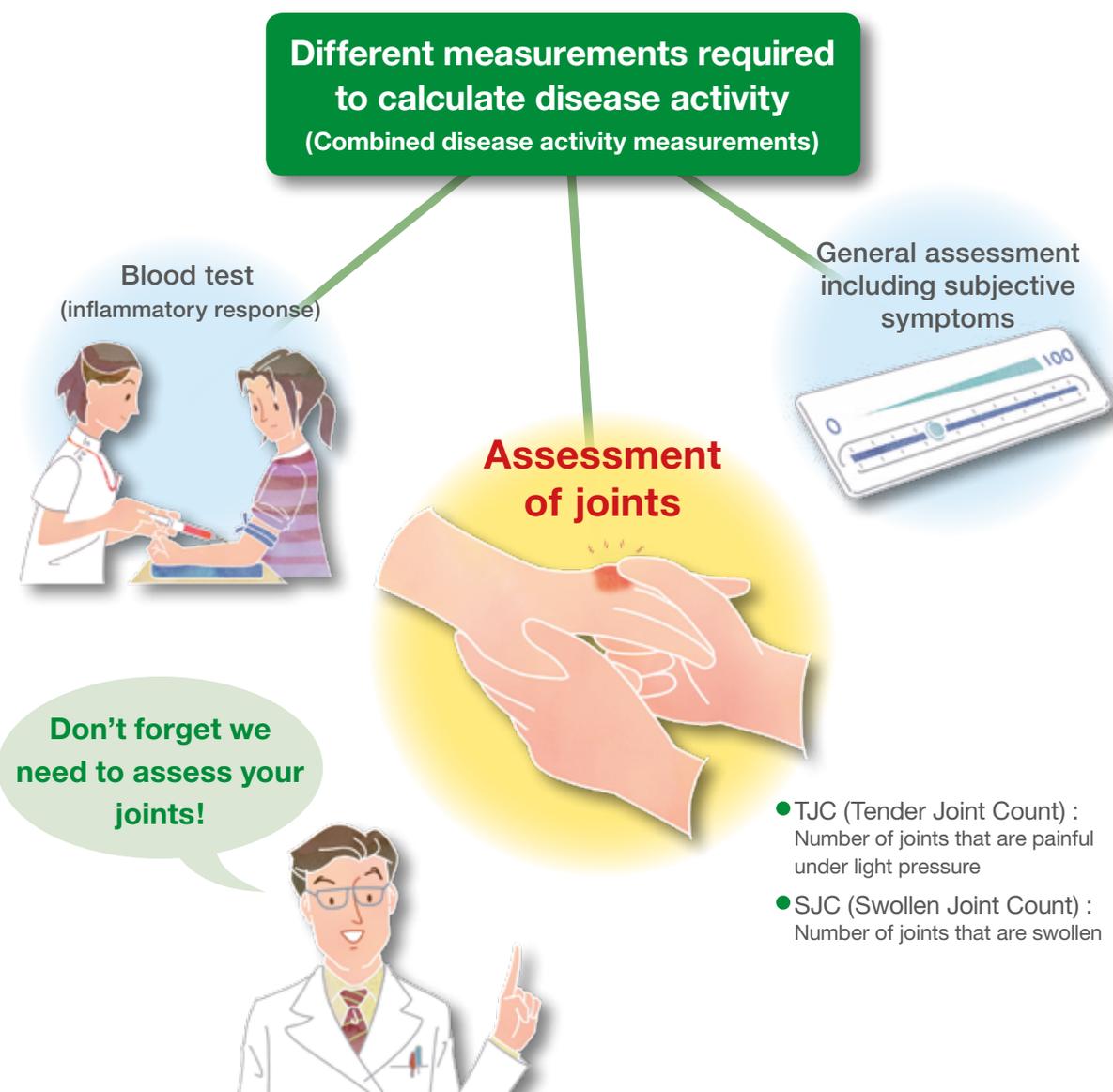
**A:** Damage to joints can happen quickly in some patients with high disease activity. For this reason, if your disease activity is moderate or high, it is recommended that you have more frequent assessments to make sure that your treatment plan can be adjusted quickly if required.

*Sustained:* A state that is maintained during a longer period of time—for example, more than 6 months.

➔ Please see the Glossary for more details (page 34–36)

6

**Combined disease activity measurements which include joint examinations are needed in routine clinical practice to guide treatment decisions.**



Measurement: The assessment of a particular health-related factor by using the most appropriate instrument.

➔ Please see the Glossary for more details (page 34–36)

**Remember!**

**Get your joints examined.**

RA mainly affects the joints, and without their physical examination, it is difficult to score your disease activity level accurately. It is, therefore, important for you to ensure that your healthcare professional examines your joints by gently pressing them as part of your assessment.

**Q & A**



**Q: Can you tell me which measures of disease activity include joint assessment?**

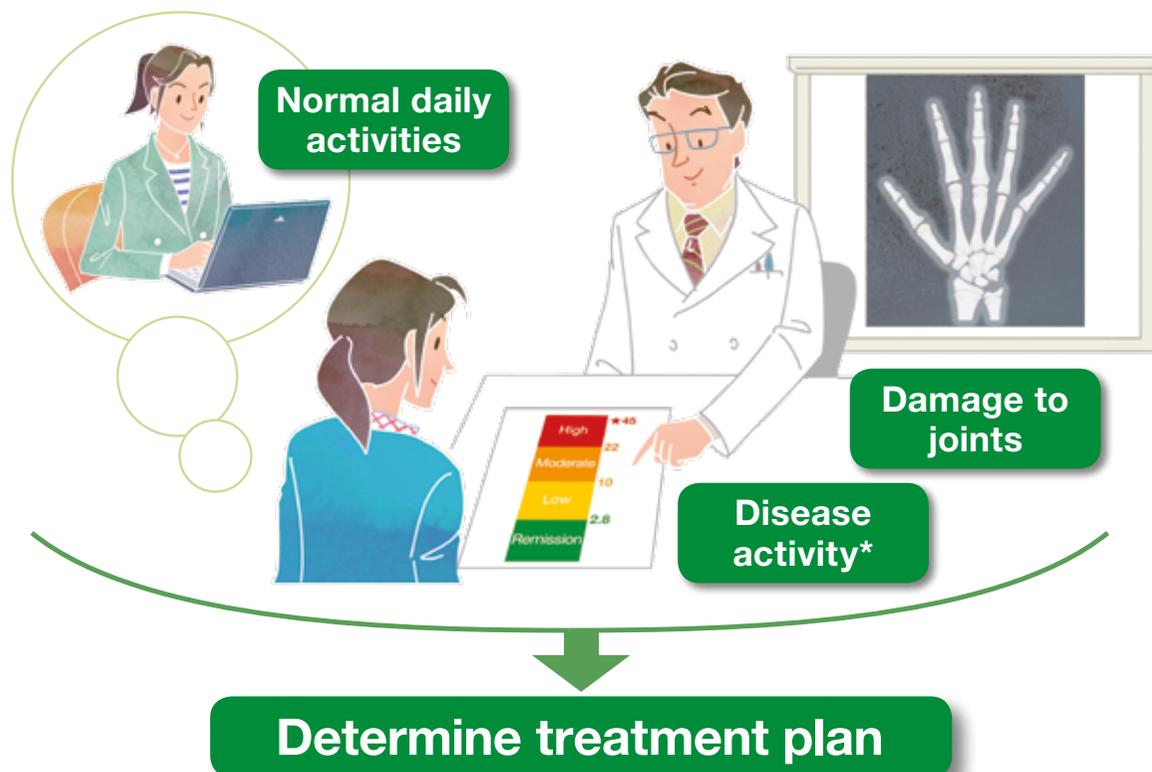


**A:** CDAI\*, SDAI\* and DAS28\* are typical examples of measures of disease activity that include joint assessment.

\*See pages 8 and 9 for calculation and evaluation of these scores.

7

Besides *disease activity* treatment decisions in clinical practice should also consider damage to the joints and restrictions in activities of daily living.



**Remember!**

**Even if disease activity is well controlled, joint damage may get worse in some cases.**

Your healthcare professional looks at your joints by having an X-ray test usually about once a year, in order to check that joint damage has not worsened. It is also important to find out how much your normal daily activities are affected so that you and your healthcare professional can develop a treatment plan. If you have problems doing daily activities, please tell your healthcare professional.

*Disease activity:* Signs and symptoms caused by inflammation owing to RA.

➔ Please see the Glossary for more details (page 34–36)

**Q & A**



**Q: How do healthcare professionals detect damage to the joints?**



**A:** Changes in joint damage can be detected by different imaging methods, especially radiography (X-ray).

**Q: What do X-rays show?**

**A:** X-ray images enable us to detect and measure the damage to bones and cartilage and see if there are any changes from the last X-ray. It is, therefore, recommended that you have regular X-ray examinations as recommended by your healthcare professional.

**Q: How do you measure the impact of RA on my normal daily activities?**

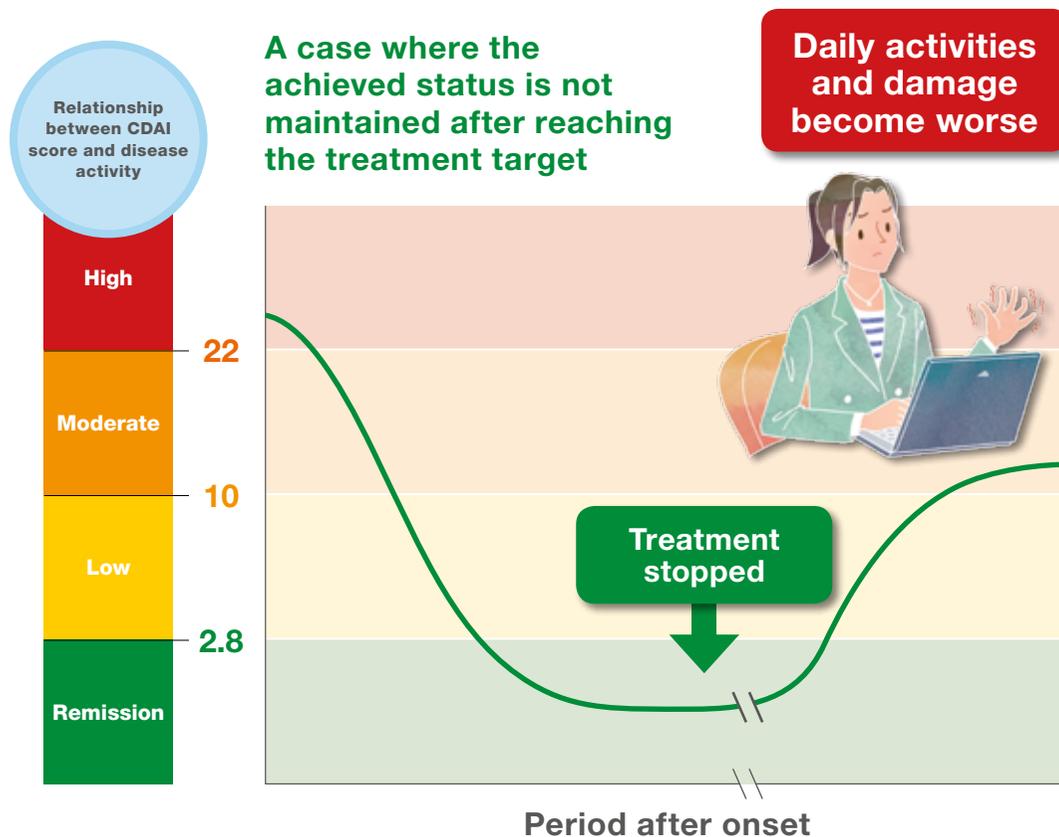
**A:** Patients are usually asked to complete the *Health Assessment Questionnaire (HAQ)* and their responses are scored. The score helps us to track the level to which RA is affecting your normal daily activities. Please ensure that you regularly assess your normal daily activities using HAQ.

*HAQ:* A self-assessment questionnaire sheet filled out by the patient to assess how normal daily life is affected by having RA.

➔ Please see the Glossary for more details (page 34–36)

8

The desired treatment target should be maintained throughout the remaining course of the disease.



A case where the achieved status is not maintained after reaching the treatment target

Daily activities and damage become worse

Treatment stopped

Period after onset

Remember!

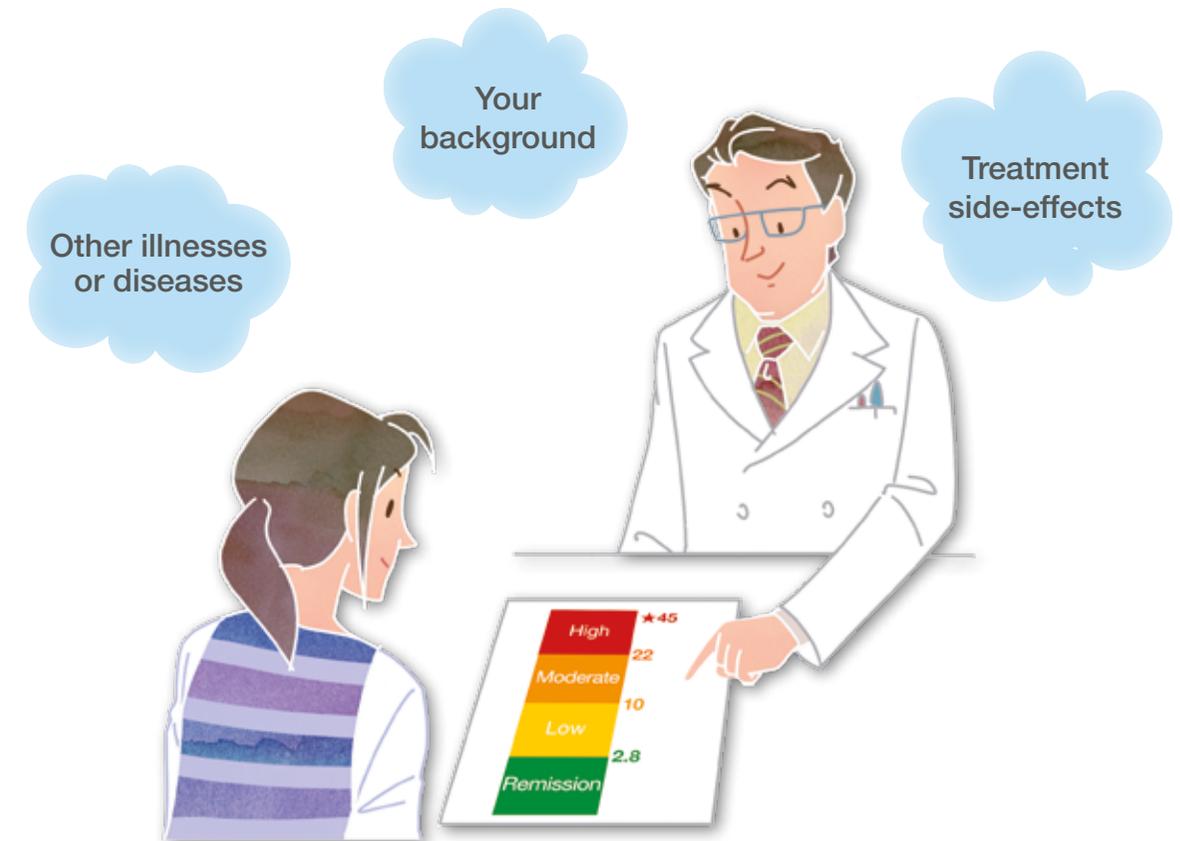
Once you reach your treatment target, the goal is to keep it at that level.

Even after reaching remission or other treatment targets, joint damage (and your ability to perform daily activity) can worsen if disease activity increases again.

For this reason, once the treatment target has been reached, it is important to continue treatment to help maintain that level as long as possible.

9

Selecting the appropriate measurement of disease activity and target may be influenced by the individual situation: presence of other diseases, *patient related factors* or drug-related safety risks.



Remember!

You and your healthcare professional decide your treatment targets based on your individual condition.

Your treatment target can be reset, e.g. from remission or low disease activity to moderate disease activity, based on your personal circumstance or preference such as the presence of other diseases, your age, physical condition and the level of side effects that you experience.

*Patient-related factors:* Patient factors relates to personal preferences and characteristics such as occupation, age or gender.

➔ Please see the Glossary for more details (page 34–36)

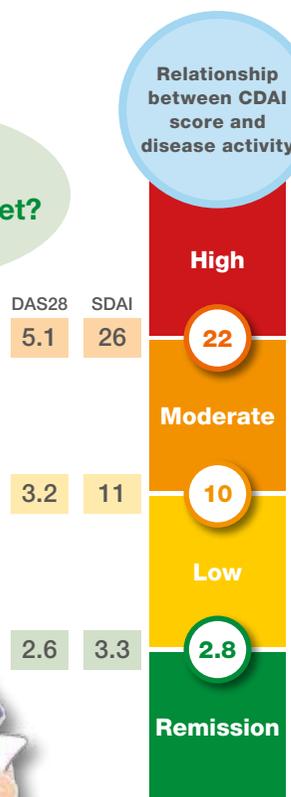
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The patient has to be appropriately informed about the treatment target and the *strategy* planned to reach this target under the supervision of the rheumatologist.

What is my treatment target?



What is my CDAI score today?



5.6

Well, 5.6 is a good number. Given that you have your disease for a long time. Now we have achieved the target.

If you had early disease, we would discuss if we could do even better, since you still have two swollen joints, but for now we should be happy.



It has dropped to 5.6.

*Strategy:* A predefined way by which the clinician and the patient try to achieve the treatment target.

→ Please see the Glossary for more details (page 34–36)

Remember!

Share your treatment goals!

You should involve all healthcare professionals (e.g. doctors, nurses and pharmacists) in your treatment. You should share all information with your healthcare professionals and talk to them regularly to make sure that you are going to reach your treatment goals.



Q & A



**Q:** What should I do to ensure I get the best out of my RA treatment?



**A:** Treatment for RA is agreed between you and your healthcare professional. You should, therefore, always try to learn more about the disease and the different treatment options.

## Glossary

This section explains complicated terms used in this booklet, and technical terms related to RA that are often used during an examination or clinic visit.

### **Clinical remission** [Related items: 1 and 2]

A patient is considered to have reached clinical remission when his or her disease activity drops to the lowest level in the measure used. It is based on feedback from the patient, examination of the joints and results of blood tests. Clinical remission does not incorporate radiographic, MRI, ultrasound or other imaging outcomes.

### **Adjustment of drug treatment** [Related items: D, 4]

A change to the drug treatment. This is not always necessarily a change in drug. For patients who have not achieved the primary target of remission but show significant improvement over the last 3 months, dose adaptation or continuation for several weeks instead of change of drug(s) may be sufficient. The kind of adjustment depends on the applied strategy and individual response of the patient.

### **CRP: C-Reactive Protein**

CRP is a protein present in blood when there is inflammation or tissue destruction in the body. Because CRP reacts rapidly to changes in RA symptoms, it is used as one of the laboratory measures for identifying the level of inflammation.

### **Disease activity** [Related items: D, 2, 3, 5 and 6]

Signs and symptoms caused by inflammation due to RA. Rheumatologists often distinguish between four different levels of disease activity: high, moderate, low and remission, based on a score (number) calculated using a composite measure. The names of the four disease activity levels depend on the measure that is used.

### **ESR: Erythrocyte Sedimentation Rate**

Test to measure the hourly rate of sedimentation of red cells. ESR is used as one of the signs for identifying the level of inflammation due to RA—that is, when the ESR value rises inflammation occurs in the body.

### **HAQ: Health Assessment Questionnaire** [Related item: 7]

A self-assessment questionnaire sheet filled out by the patient to assess how normal daily life is affected by having RA. The questionnaire has 20 questions on different actions and activities from normal daily life. The patient is asked to answer these questions using a four-point scale from “No problem” to “Impossible.” A score (number) is calculated based on the answers.

### **Health-related Quality of Life** [Related item: B]

Health-related quality of life refers directly to the impact of the disease on daily life and is determined by a variety of individual and social factors. It is not limited to the medical encounters in the clinic. It includes the impact of the disease on psychological health, work participation, family life, social relationships and leisure.

### **Inflammation** [Related items: C and 2]

Inflammation is the basis of the disease process in RA. It is caused by an immune system response and results in signs and symptoms, such as joint swelling, pain and stiffness. It also creates joint damage and limits function. By stopping inflammation, damage and disability can be reduced or even avoided. However, swelling or pain in the joints may result from causes other than inflammation.

### **Measurement; measurement score** [Related items: 5,6,7,9]

The assessment of a particular health-related factor by using the most appropriate instrument (eg, test or questionnaire).

### **Normal function** [Related item: 7]

Normalisation of function is trying to return to normality: the state where a person was before the disease started.

### **Patient factors** [Related item: 9]

Patient factors relates to personal preferences and characteristics such as occupation, age or gender.

## QOL: Quality of Life [Related item: B]

This is measured by a variety of individual and social factors. Health-related QOL is about how the disease affects daily life. It is not limited to when you are with your healthcare professional in the clinic. It includes how the disease affects how you feel, your work, family life, social relationships and leisure.

## Signs [Related item: 2]

Features that can be seen by physical examination, such as the number of swollen joints.

## Strategy [Related item: D, 10]

A predefined way by which the clinician and the patient try to achieve the treatment target.

## Sustained remission [Related item: 5]

A state of remission (without any signs of inflammation) that is maintained during a long period of time, i.e., more than 6 months.

## Symptoms [Related item: 2]

Features of the disease as they are felt or experienced by the patient, like tiredness, pain or stiffness.

## Target [Related item: 6]

Ultimate goal; the final outcome you want to achieve by treating RA.

## VAS: Visual Analogue Scale

A 0-10 cm or 0-100 mm scale, in which “0” indicates the best you could be and “10” or “100” indicates the worst you could be. There are cases where the patient self-assesses his or her condition according to this scale, or the healthcare professional makes the assessment using this scale through all evaluations performed. In some cases, the patient is requested to self-assess his or her pain level, with “0” indicating “no pain” and “10” or “100” indicating the “maximum pain” that the patient has ever experienced.

# My Targets

## Have you reached your treatment targets yet?

Ask your healthcare professional to tell you your disease activity score and what target you should set.

Date : \_\_\_\_\_

Method of assessment :  CDAI  SDAI  DAS28

 Current condition Score : \_\_\_\_\_

 Target Score : \_\_\_\_\_

To encourage yourself during treatment, in the space provided write what you want to do in your daily life, your dreams and short-term goals after treatment.

(e.g., continue working, take social dance lessons, go hiking, etc.)

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