



Do you wear
a
BRACE?

Here is

isico's
ADVICE

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This booklet provides you with useful advice that will help you to manage your treatment with a brace and overcome the difficulties you might meet.

Remember, though, that if you have problems that you can't solve, especially early on, it is best to get help from the doctor who prescribed the treatment, the orthopaedic technician who made your brace, or the physiotherapist who is helping you with your exercises.

How to use a brace

Make sure you always wear your brace for exactly the number of hours prescribed by the doctor: this way, you will obtain the desired correction and the results of your treatment won't be compromised.



The **hours that you are allowed to go without your brace each day (brace-free hours) must be continuous** and not broken up over the day.



However, it is for you to choose what time of day you prefer to leave your brace off: no one else must decide for you.

When you receive your brace you must immediately start wearing it for the prescribed number of hours each day: you might find it uncomfortable to begin with because at first your back will resist the pressure of the brace, but after 24-48 hours your back will offer less and less resistance and the discomfort will gradually disappear. The first night you will find it very difficult to get to sleep, while the second night you will be tired and sleep deeply. After that you won't have any more problems sleeping!

When you fasten your brace, make sure it is as tight as possible.

As soon as you find you can, tighten it beyond the reference marks made by the doctor: that way, it will be less visible and, even more important, it will help you get better results faster. What's more, if you keep it well tightened when you are walking, running or sitting, you will find it will move less and be less irritating.

Remember, there are several disadvantages if you wear your brace loose: it will be more visible and more irritating, and it will make the treatment less effective.



To put your brace on, you need to lie down on a carpet or another flat surface. If you wear a brace that reaches up to your armpits, make sure you have pulled it up properly before tightening it so that it won't press on your pelvis too much when you stand up. This is the correct way to put it on. Only do it differently when you have no other choice.

When you are putting on or taking off your brace, or carrying it, **never hold it by the sternal closure.**



After eating you might feel that your brace is pressing too hard on your abdomen. If this is uncomfortable, **you can loosen it a little for 30 minutes**, but you must not take it off altogether. For **kinesitherapy sessions** (sessions of exercises without your brace) you take your brace off and then put it back on again when you have finished. The time you spend doing these sessions counts as brace-wearing time, because even though you don't have it on, you are doing self-correction movements that provide the same correction as the brace.

If your brace has metal bars, **you can get these covered with strips of fabric**, to avoid tearing clothes or sheets.

Don't slump when you are wearing your brace. Use it actively, taking care to support your spine as though the brace wasn't there.

Especially when you are sitting down, be careful not to rest your lower back against the brace.



Summer can be a difficult time of year if you wear a brace. **The hottest part of the day is the best time** to choose for your brace-free hours. Make the most of air conditioning and fans to help yourself keep cool.

If you have to wear a **brace all the time, it's a good idea to choose cool places for your holidays**, such as the mountains! If you live at the seaside or go to the sea, you must still follow the doctor's prescription: if you are allowed to take your brace off for part of the day, why not have a swim then?



If you feel your brace starting to get tighter, don't wait until it is too tight to wear before taking action: get it sorted out immediately. You can contact the orthopaedic laboratory where it was made, the physiotherapist who supervises you, or the doctor who prescribed it to check whether it really has become too small and needs altering or replacing with a new one, or whether, instead, you are simply not wearing it correctly.

If your brace breaks, try to repair it as best you can and immediately get in touch with the orthopaedic laboratory to get it fixed.

IN ANY CASE, YOU CANNOT REMAIN WITHOUT A BRACE ALTOGETHER as this could cancel out, in just a few days, ALL THE HARD WORK you have done so far, possibly over many months. If it really can't be worn, you must avoid loading your spine. That means you must stay in bed until we have sorted out your brace.



The things you can do with a brace on

A brace allows you good freedom of movement. Breathing is completely unrestricted. You can walk, run and travel by car without any major problems.

You can travel by plane, but we recommend that you take your medical prescription with you.



Check if the Highway Code expressly prohibits you from wearing your brace when riding a bike or motorcycle, or driving a car. However, you need to check your insurance policy too, to see if there are any restrictions.

You can do physical education (PE) lessons at school. Just avoid those activities that your brace prevents you from doing (e.g. high jump, somersaults).

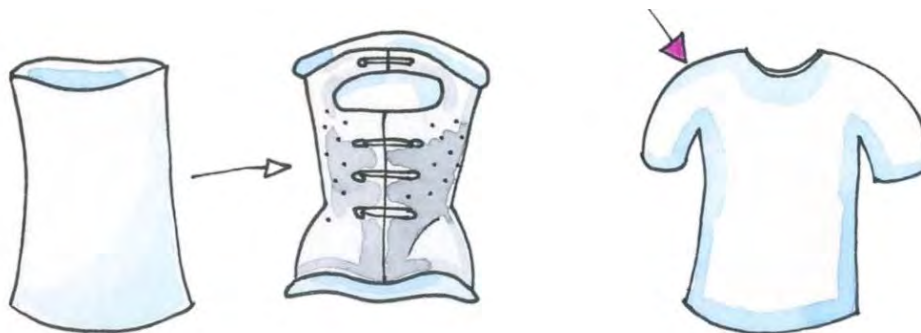
If your PE teacher needs confirmation of your situation before exempting you from certain activities, ask your doctor for a certificate. However, it is essential to keep doing sport so that you don't lose muscle mass. Unless the doctor advises otherwise, **IT IS IMPORTANT TO KEEP ON DOING THE SPORTS YOU DID BEFORE STARTING TO WEAR A BRACE.** It is up to you to choose whether to do sport in your brace-free hours or instead to do it with your brace on (in this case avoiding sports that involve body contact).



REMEMBER! Be sure to do (at home and/or the gym) your specific back exercises. This way, your brace will be even more effective and the muscles that support your spine will stay in good shape.

Take good care of your skin

Make sure you check your skin frequently and take good care of it, especially in the places where the brace presses on the most. **Have a shower every day.** Under your brace, wear a **short-sleeved cotton T-shirt** without side seams (if necessary turning it inside out so that any seams are on the outside). Preferably it should be a close-fitting T-shirt. Alternatively, you could use a **seamless fabric tube** to “line” your brace, thereby protecting both your skin and your clothes (which can sometimes tear when they come into contact with the brace). Whatever you wear under your brace, be careful that it doesn’t form creases under the armpits or against your sides that might irritate you.



PREVENTING SKIN PROBLEMS

Early on in your treatment, when the brace is worn high under your armpits, remember the following:

- ✓ Do not use alcohol-based deodorants, sprays, creams or lotions that soften the skin in the areas where it is in contact with the brace, or antiperspirant deodorants: paste or stick deodorants are fine.
- ✓ In some cases, you may want to apply thin panty liners to the brace where it fits under the armpits; these can be changed frequently, especially in the summer, when you sweat more.
- ✓ Wash your T-shirts with neutral detergents to avoid allergy problems.
- ✓ Check the condition of your skin frequently, especially early on in your treatment.
- ✓ Using your hand, rub a little surgical spirit on all the parts of your body that are most in contact with the brace, to toughen the skin and make it more resistant.
- ✓ Do not use emollient creams: they make the skin more fragile.
- ✓ Call the orthopaedic laboratory only if the area in contact with the brace is increasingly sore, or abrasions or skin lacerations form.

First Aid Instructions

- ✓ *If your skin gets a little red and sore: rub it with a cotton wool ball soaked in surgical spirit or with a good perfume with a high alcohol content.*
- ✓ *If your skin appears reddened with small abrasions: apply a thin layer of zinc oxide ointment or cream (e.g. a nappy cream) at least twice a day.*
- ✓ *If the skin starts to show slight lacerations: apply Hyal silver, which contains metallic silver and helps healing.*
- ✓ *If the skin tears: use a cream that speeds up the healing process and contact the orthopaedic technician who made the brace.*
- ✓ *If the skin is damaged in areas where the brace presses on it, avoid using plastic plasters (the kind you keep in the first aid box at home). This could soften the skin too much.*
- ✓ *If the skin tears, it will heal and leave a scar. Whereas abrasions do not leave any marks, scars remain. To ensure the scar heals well and is as inconspicuous as possible, it is important to protect it from the sun for the first few months.*
- ✓ *Although braces do not cause stretch marks, in individuals predisposed to developing them, braces can contribute to their appearance. In such cases, apply specific products for treating and preventing them.*
- ✓ *In the areas where the brace presses on the most, dark calluses can sometimes form. These soon disappear once the treatment is over.*



OUR ANSWERS to your questions

The brace is pressing on my hips too much. Why?

To put your brace on you need to lie on a flat surface and then move the brace up as far as possible under your armpits before closing it as tightly as can. This is the best way to avoid discomfort around your hips: if you wear your brace too low down, it will tend to press on your hips too much. The reason it is best to put it on lying down is because your back is relaxed in this position and can be corrected better.



Another reason why it may press on your hips is that you are wearing it too loose: try tightening it a bit more and see if it feels better.

Just after putting on my brace I feel I can't breathe. Why? Will it always be like this?

A brace does not restrict your breathing, but it does change the way you breathe: when you are not wearing a brace, you breathe mainly using your diaphragm, whereas with a brace on you breathe with the upper part of the rib cage, which is still free to move. In other words, you have to learn to breathe in a different way, just like your mum did when she was expecting you and her big tummy restricted the movement of her diaphragm. To get some relief you can lie down on the bed and unfasten the brace for a short time, without taking it off. Lie there for a few minutes, resting and breathing deeply. When you feel better, close it tightly again, get up and carry on with your normal activities. But don't worry too much because this problem doesn't last long.



I have been wearing my brace for a few hours and I feel a lot of pain around my breastbone and the front of my ribs. What should I do?

It's normal for pain to develop in the sternum area in the early days of wearing a brace. Be patient, though, because the problem will gradually disappear over a few days, providing you wear the brace all the hours the doctor told you to.

I recently started wearing a brace and it is very high under my armpits. I have been told that gradually, as I grow, it will drop lower and become more tolerable. But what should I do when I need to use the bathroom?

For the first few days, if you really can't do otherwise, you can take off your brace for the few minutes it takes to use the bathroom. But each day try and see if you are able to move better and can manage to keep it on, because by removing it, even just for 20 minutes, you'll lose part of the correction you obtained during the preceding hours.



Do my brace-free hours always have to be at the same time of day?

The hours that you are allowed to go without your brace must be continuous, but the time of day is up to you. Also, it doesn't matter if one day you chose to go without your brace in the evening, while the following day you choose the morning instead (thereby reducing, on that occasion, your hours of consecutive brace wearing). What matters is how long you wear the brace during each 24 hours.

When you reach the point that you are allowed more than 10 brace-free hours per day, you will need to count your "brace-on" rather than your brace-free hours. When you reach this stage, the time that elapses from the moment you put it on to the moment you take it off must always correspond exactly to the number of brace hours prescribed.

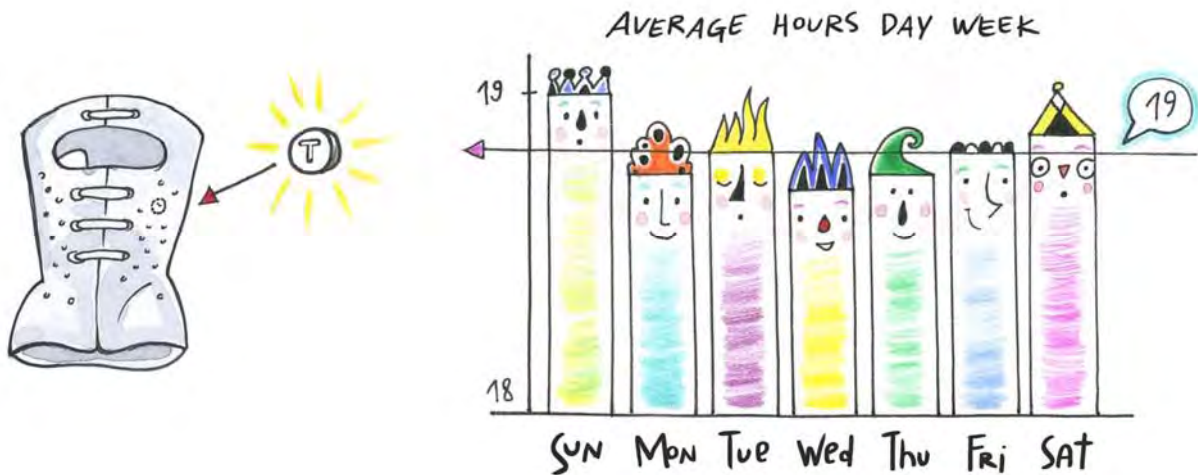


Can I wear the brace for less time one day and make up the time the following day?

It is essential that you always wear your brace for the number of daily hours prescribed by the doctor. If you go without it for more hours than this, or plan to do so, it is not a good idea to try and make up the time afterwards or in advance. In fact, this kind of strategy tends to compromise the results of the treatment. The best results are obtained by wearing the brace correctly and regularly.

My brace has been fitted with something called Thermobrace. What is it?

It is a temperature sensor, basically a small thermometer. It is used to record how many hours you actually wear the brace each day. It helps your doctor make the best decisions for you, and allows him to give you suggestions and advice to improve your collaboration. To stop it getting rusty, the sensor can be covered in cling film.



My brace is broken! What should I do?

If your brace breaks and you can't get it to the laboratory immediately, perhaps because it is closed (holidays, weekend) or you are away, on holiday for example, stick the damaged parts together with adhesive tape or a strong plaster until the brace can be properly repaired. If there is a crack in it, bring it to the laboratory before the crack turns into a break. If you can't do this immediately, drill a small hole at each end of the crack to stop it from opening.

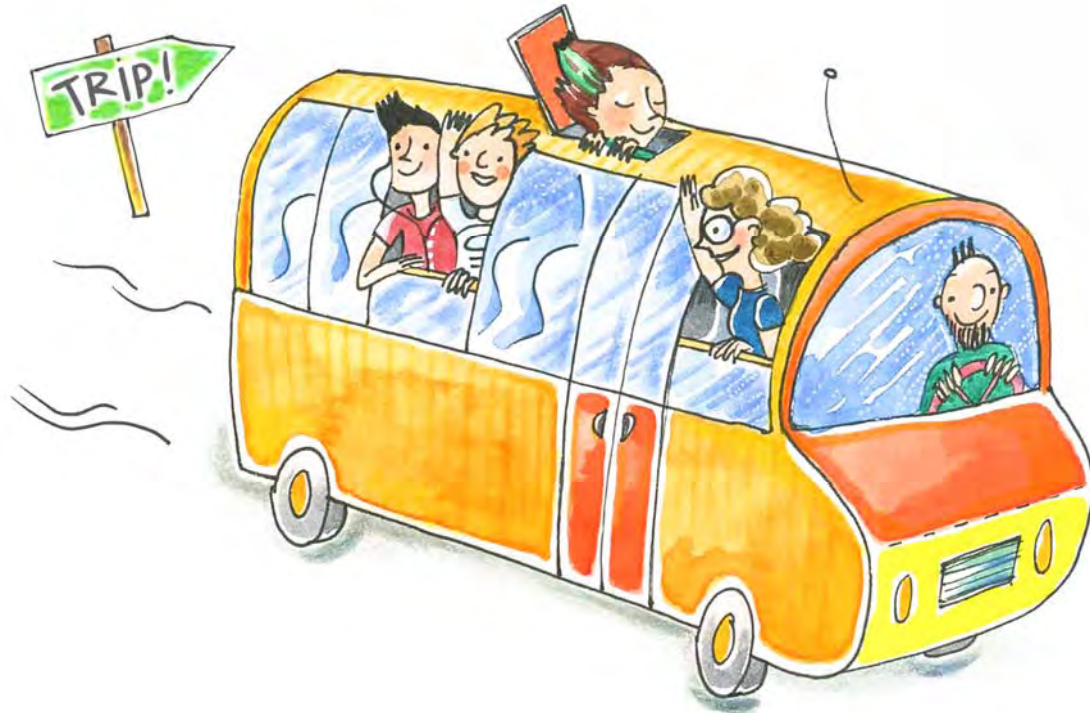


In the summer, when it's hot, my brace makes me sweat a lot and I often need to have a quick wash and change my T-shirt. What should I do?

If you feel the need to cool off and change your T-shirt frequently, you can do so, but you must be quick about it, taking no more than a couple of minutes each time. Any longer and you will be interrupting your brace-wearing hours and perhaps compromising the results of your treatment.

I am going away on a school trip for 3 days: what should I do about my brace?

It is important to stick to the doctor's prescription, even on a school trip. Do not leave your brace at home: in just a few days, all the hard work and sacrifices of the past months would be for nothing, and you would also risk having a bad backache that would really spoil your trip.



I'm poorly: I've got a cough and a tummy ache. Can I take my brace off?

Loosen the fastenings on your brace, but don't take it off. If you really can't manage to keep it on, remove it but stay lying down. Wearing your brace for less than the prescribed number of hours can compromise the results of the treatment, so you absolutely must put it back on as soon as you feel well enough to do so.

I've lost weight and even when I tighten my brace as much as possible it still feels much looser than usual. Is it still effective?

It is normal for youngsters to increase in weight as they grow: this isn't a problem because the brace remains effective. On the contrary, if a patient has a weight loss of over 5 kg the brace is no longer able to apply the necessary pressure on the trunk and therefore needs to be replaced without delay. When evaluating any changes in weight, it is worth remembering that growing kids usually gain 1 kg for each 1 cm they increase in height. If you grow in height but do not put any weight on, then you are losing weight. For example, if you grow 3 cm in height but lose 2 kg, it is the equivalent of losing 5 kg: in this case, your brace will need to be checked as soon as possible to make sure it is still effective.



Whenever I move, my brace creaks. It is a nuisance at night, and in the daytime I feel as though everyone can hear it. What can I do about it?

Try putting some talcum powder on the creaky hinges and the problem should improve.

My brace makes holes in my clothes! How can I stop this from happening?

If your brace makes holes in your clothes or sheets, try covering the parts of the brace that are causing the problem with insulating tape, or have “patches” applied inside your more delicate tops and T-shirts to strengthen them where necessary. Otherwise, you could apply felt pads (the kind you put under chair legs) on the metal parts causing the damage, to prevent them from coming into contact with your clothes.



I seem to have become “brace shaped”: in the areas where the brace presses against me, everything stays compressed, and where it ends my hips and buttocks seem to have got wider and I have accumulated lots of fat. Why?

These are problems that can occur in people who are predisposed to them. The best way to prevent and treat them is to avoid a sedentary lifestyle and do regular physical activity (both aerobic and muscle strengthening), intensifying this at the end of the treatment. In any case, you will see that once you are able to start wearing the brace for fewer hours, and providing you continue doing your exercises and regular physical activity, you will regain your natural body shape.

I have noticed that grooves have formed in front of my armpits, where the brace presses in, and they don’t disappear during my brace-free hours: could my muscles be damaged?

The pressure of the brace doesn’t cause muscle damage: these grooves will tend to disappear once you are wearing the brace just at night, and they will disappear completely a few weeks after you have stopped wearing it altogether.

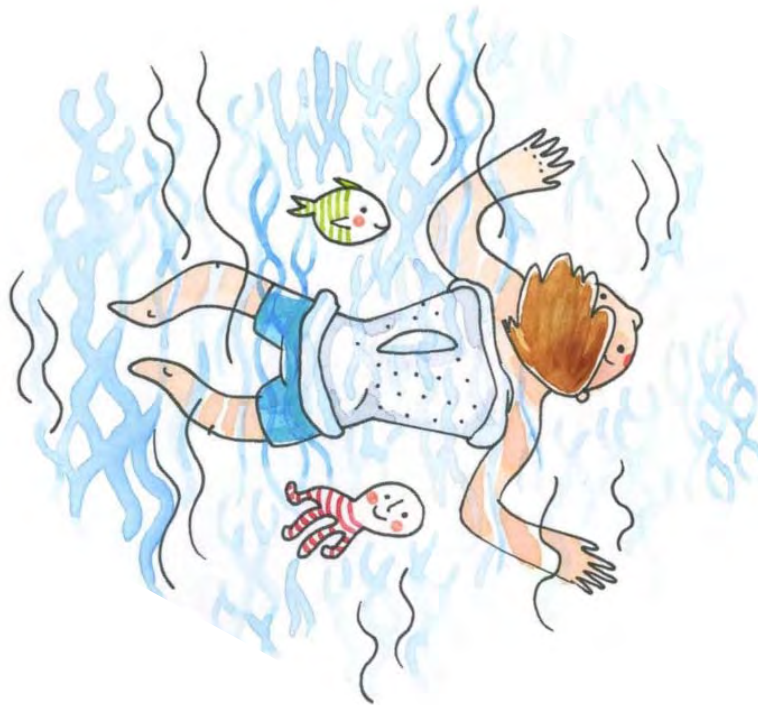
Can I wash the brace?

Yes, use products with detergent, antibacterial and disinfectant properties. Rinse it well (not in running water!) And dry it carefully.

Can I bathe and swim with my brace on?

You can, but there are some conditions. Remove the Thermobrace device before entering the water, do not leave it in the sun, and put it back in place when you have finished bathing; you must also remove the covers on the back of the brace that conceal the metal parts, as otherwise water could collect here. If you have been in the sea, you will need to rinse the brace well in freshwater. Dry it thoroughly, especially the metal parts that can rust. Do not use hot air (from a hairdryer) to dry the pads as this will dry out the glue that was used to apply them.

Warning! You cannot bathe or swim with your brace on if the strip protecting your abdomen is made from leather: you must first replace it with a plastic one. Do not go in water where you are out of your depth (you must always be able to touch the bottom). It is important to follow the above precautions carefully.



SOS!

It is rare for a brace to cause major problems requiring the intervention of the orthopaedic laboratory or medical specialist. Nevertheless, we still wish to explain the solutions to several problems that, if managed badly, could prevent the treatment from continuing in the best way possible.

→ Pimples under your skin

Under your armpits or in areas where there is most pressure from the brace, you may get subcutaneous pimples that become reddened and slightly swollen, and they may be painful and/or itchy. If this happens you can apply cotton compresses soaked in hydrogen peroxide solution. These should be applied twice a day and remain in contact with the skin for at least 5 minutes each time.

→ Excessive pressure on one or more ribs

When you first start wearing your brace, you may find that it presses excessively on one or more protruding ribs. The affected area usually becomes inflamed (red) and, with the passing hours, the pain gets increasingly unbearable. If this happens you must go to the orthopaedic laboratory and have the problem sorted out as soon as possible. If, on the other hand, you feel pain during the first hours after putting on your brace for the first time, but the skin doesn't look red, you simply need to be patient for a few days because this problem will gradually disappear.

If you can't get to the orthopaedic laboratory quickly, you can do a "DIY" job: using an eyeliner pencil, mark on your skin the area that is causing you pain, then put your brace on in such a way that the pencil mark is transferred to the area of the pad that is causing the problem. After that, you can take off your brace and, using a box cutter or razor blade and a file, hollow out the pad slightly in that area.



→ Small cysts in the ribcage area

If you should develop a small subcutaneous cyst in a place where the brace presses at chest level, and it hurts when pressed, contact the orthopaedic laboratory: it is nothing dangerous, but it means that we need to reduce the pressure of the pad in that area. Each time your brace is changed, remember to tell us if you have had this problem.

→ **Reddened and painful spinous processes due to pressure against the back bar**

Kids wearing braces will sometimes relax to the point that the rear part of their spine rests against the brace. If their spine is continuously leaning against the brace in this way, a bruise will appear and, over time, a kind of callus will form. It is important to be careful not to let your lower back slump (curve outwards) when you are seated. If this is a real problem for you, contact the orthopaedic laboratory to have the brace modified or some kind of protection applied to the affected area.



→ **Dermatitis and allergic reactions**

Apply a zinc oxide cream or ointment. If the skin outbreak is severe, contact a dermatologist. You can also cover the brace pads in hypoallergenic material. The brace treatment should never be interrupted due to skin problems: it is therefore important to check your skin regularly as a preventive measure, to act quickly if problems occur, and to make sure the orthopaedic laboratory staff, when they give you your brace, are aware of any allergies you have.

→ **Surgery, rash illnesses**

In situations where you have no choice but to remove your brace, you must stay in bed and contact the doctor or physiotherapist.



→ **Tingling or numbness in the arms or legs**

First of all, check that you have put the brace on correctly. If the problem persists (either all the time or when you are in certain positions) even though you are sure you are wearing the brace correctly, contact the orthopaedic laboratory as soon as possible to make the necessary adjustments and sort out the problem. If these sensations descend lower than your elbow or knee and there is pain in addition to the tingling, contact the doctor who will check the brace and send you to the orthopaedic laboratory for the necessary adjustments.

→ **Rapid heartbeat, difficulty breathing**

These are problems that are not directly related to the brace or the scoliosis. Brace treatment is strenuous and demanding and it is bound to be stressful for youngsters to begin with. For some, it can be a little unsettling psychologically. It is important that we all talk about these problems together, so that you feel happier about the treatment. If you continue to have these problems, contact the physiotherapist, the doctor, or your own family physician.

→ **Nausea and vomiting**

During the very first days of wearing your brace, you may feel a bit sick, and you may even be sick. If you have this problem, it is important to loosen your brace a little at mealtimes and to keep it loosened for half an hour after eating, but without taking it off. Your body will soon adjust to the feeling of compression and it is likely that these problems will quickly ease and disappear.

→ **The brace feels too tight at the chest**

If, after wearing your brace for a few weeks, you start to feel it is too tight at any point in the chest area, come and have it checked at the orthopaedic laboratory.

→ **The brace feels too tight at the hips**

First of all, check that you are putting your brace on in the correct way and that it is worn tight as it should be. If this problem persists and you develop painful bruising or skin damage, come and have it put right at the orthopaedic laboratory. Sometimes, protective pads for calluses can be used to reduce the pressure on the most painful areas.

→ **The brace feels too small**

If you have the impression that your brace is getting too small — for example, it may feel very tight at the hips and/or chest, be low under your armpits, or have moved high under your armpits because your pelvis has grown wider and is pushing it upwards, or the two flaps of the brace may no longer meet at the front —, contact the doctor or the orthopaedic laboratory for a check-up, and possibly to have a new brace prescribed. Even if your brace feels small, you must still wear it for the prescribed number of hours, to avoid compromising the results of the treatment. You can loosen it temporarily until you see the doctor. If he prescribes you a new brace, do your best to cooperate so that the preparation and testing of the brace can be completed as soon as possible. Indeed, although a small brace continues to be just as effective as before, it can become unbearably uncomfortable.



→ **Breast discomfort**

Ask an orthopaedic technician for help if the brace starts to press on the side or the top of a breast.

→ **Back pain**

If you experience back pain, more or less constantly, both when you are wearing your brace and during your brace-free hours, you need to tell the physiotherapist or doctor. In many cases this is due to muscle spasms, in which case stretching exercises to ease the contracted muscles can help; also, try and relax your muscles when wearing your brace.

→ **Back pain towards the end of your brace-free hours**

If, every day, you experience a bit of back pain towards the end of your prescribed brace-free hours, this can simply mean that your back is tired. Nevertheless, it is essential to adhere strictly to the stipulated brace-free periods and also to do the prescribed exercises regularly, because both are intended to improve the ability of your spine to support itself when you are not wearing the brace. Talk about the problem with the physiotherapist and, if the pain is severe, contact the doctor.

→ **Back pain while wearing the brace**

If you experience back pain while wearing your brace, it may be due to muscle spasms. Discuss the problem with the physiotherapist, who will assess the situation and give you the appropriate advice.

→ **Back pain while wearing the brace at night**

If this problem occurs, ask one of your parents to give you a 10-15 minute muscle-relaxing massage before you go to bed at night. If the pain persists, contact the physiotherapist.

Keep calm and ...

Your brace is your best friend! But it is also uncomfortable, irritating and sometimes quite unbearable — a friend disguised as an enemy! This treatment is demanding and difficult, but it is not a mission impossible. We know this because we have known lots of young people just like you.

In fact, hundreds of youngsters who, like you, have had to wear a brace every day throughout their adolescence have shown us that it can be done.

Scoliosis cannot be eliminated, but if you are willing to roll up your sleeves you can tame it. In fact, scoliosis is rather like a wild and unpredictable horse, but together we can tame it, and keep it under control.

To get off on the right foot, it is crucial that you understand properly why the doctor has prescribed a brace for you. This will be discussed when you come to the centre, but if you are left with any doubts, please ask us to explain again. If you know exactly why you have been prescribed the treatment it will be easier for you to understand and accept it, and therefore easier for you to reach your goal.

Accepting your brace can be a slow process, but you will get there.

In the end, you want the best for yourself and you know that it is worth fighting to improve and have a healthy back.

Remember: you have to be brave, but you are not alone. There are lots of people who will support you: your family, the doctor who prescribed your treatment, your physiotherapist, and the orthopaedic technician. All of these people will be with you every step of the way, working with determination to make sure that, when you are an adult, you have a strong back that works well.



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