



PHYSIOTHERAPY
on the **CAMINO**

INTRODUCTION

The Colexio Oficial de Fisioterapeutas de Galicia [Physiotherapists' Professional Association of Galicia] is providing pilgrims with this handbook of recommendations on how to embark upon the Camino de Santiago and get the most out of the journey. It contains a series of tips on planning and physically preparing yourself for each part of the journey; choosing the right type of rucksack, and on filling it and how to carry it; the kind of clothing and footwear you should use; the best walking techniques; the importance of hydration; foot care; how to combat fatigue; and what to do if you injure yourself. There is a chapter for people with a disability, and the handbook comes with a guide of the nearest physiotherapy centres to the Camino.

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**The Colexio Oficial de Fisioterapeutas
de Galicia Governing Board**

PHYSIOTHERAPY ON THE CAMINO DE SANTIAGO

The pilgrimage to Santiago de Compostela is every inch a physical and mental challenge for which you should prepare yourself thoroughly.

· PREPARATIONS BEFORE THE PILGRIMAGE:

- + Train beforehand, working out daily in the gym to tone your body and make your back, leg and neck muscles more flexible.*
- + Devise a plan split into stages of 25 to 30 kilometres on foot per day and 60 to 100 by mountain bike. Bear in mind your own physical capabilities and the distance between hostels at all times.*
- + Study the weather forecasts to take appropriate clothing for heat, cold and humidity. Note that humidity can cause chronic pains in skeletal muscle.*

+ Go to the physiotherapist's to relax the muscles and begin the journey in the best physical condition possible.

1. TRAINING BEFORE THE PILGRIMAGE

· FOR MAKING THE PILGRIMAGE ON FOOT

+ If you are not used to walking long distances, start with short ones and gradually make them longer. If you can, walk to the mountains to get used to walking up and downhill, until you can cope easily with the distance you are planning to walk in each stage.



+ Start the final outings with your rucksack packed to get used to the weight of it on your

back. This will also be a chance to see if it is too heavy.

+ Adjust your rucksack to the shape of your back, making sure it is neither too loose nor too tight. The weight must be close to the body when in an upright position and to its centre of gravity.

+ If you have not been able to train before beginning, you should make a gentle start to the journey and increase the distances you walk little by little, safe in the knowledge that your body will tell you if you are doing the right thing or not.

· FOR MAKING THE PILGRIMAGE BY BIKE

+ For people who are not used to cycling, and depending on how far you will cycle each day, two months of training in advance will be enough.

+ You should start little by little, by pedalling normally first and then alternating between flat terrain and steeper ones. This will allow you to

gradually identify the appropriate gear combination for each profile.

+ In the last few days before you start the journey, cycle with the saddlebags on and packed. This way you can get used to them like this and see if the amount of baggage is appropriate: it is in your interest to reduce it to a minimum, which means only taking the really essential things with you.

+ Take a small bottle of water or drink that replaces mineral salts to prevent fatigue and supply your body with nutrients that provide energy, such as simple carbohydrates.

2. CLOTHING

+ Take suitable clothing for the season, bearing in mind that many parts of the route lie at some thousand metres above sea level.

+ Use caps or hats to avoid exposing your head directly to the sun. This will prevent you from

suffering sunstroke, heat stroke and hyperthermia, etc.

+ Take a staff with you (a type of stick or pole traditionally used by pilgrims). As well as help you to support yourself and test the ground, you exchange energy with the earth, which helps prevent tendinitis.

+ The secret is to wear clothes that insulate, rather than lots of layers of clothing. A thin channel of hot air can then maintain the temperature between your skin and clothing, preventing heat from escaping and, therefore, you from being cold.

3. FOOTWEAR

+ Hiking or mountaineering boots, waterproof and made with light materials. They should adjust to your feet, allow perspiration, protect your ankles from possible injuries and make it easier for you to walk on rocky terrain and in mud.

+ Use suitable cotton socks, with no seams, for walking in.

+ In summer, you can also wear trainers, with a suitable sole for stony or rocky terrain, for walking in. It is better to wear summer hiking boots, though.

+ Bring slippers, sandals or flip-flops to relax your feet during rests and let some air get to them if you have blisters or wounds that need to close up quickly.

+ Boots that have already been worn in. Never use them for the first time on the Camino de Santiago de Compostela. This prevents them from rubbing against your feet as expected when on the journey.

4. RUCKSACK

+ Your rucksack has to be comfortable, adaptable and light. The back must be height-adjustable,

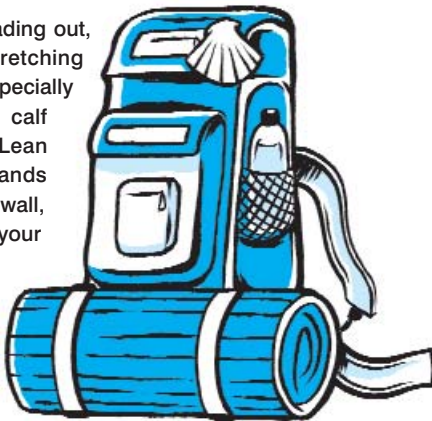
and the rucksack must have straps for the waist or hips and for the chest. It should also have upper and side pockets.

+ Do not pack too much into the rucksack (no more than 10 kilos).

+ Do not let the straps chafe your body.

5. WALKING TECHNIQUES

+ Before heading out, do some stretching exercises, especially for your calf muscles: Lean with your hands against the wall, standing on your tiptoes, then lower the soles of your feet



until you can feel some tightness behind your knees as your body comes down to the floor again. You should also stretch your quad muscles (the front head of the thigh) and the hamstring muscle group (in the back of the thigh).

- + Start walking at a gentle and rhythmic pace, and never hurriedly, until you have warmed up. Once you have, the pace should be moderate and continuous.

- + Take at least ten minutes' rest, or more if you need it, every one or two hours.

- + Always walk at a comfortable pace, one that you can keep up and still hold a conversation easily. Walking must come to you as naturally as breathing; that is, you should be able to do it without thinking about it.

- + On level ground, keep on walking as normal, with steps that are neither too long nor too short. When walking uphill, and since there is no rush, take shorter steps and walk slower, loosening the

waist strap on your rucksack to breathe easier and planting all of the soles of your feet on the ground to avoid overburdening specific areas of your body.

+ When walking downhill, and ground level permitting, take longer strides and walk faster. Plant your heels firmly on the ground and tighten the straps of your rucksack a little more to give the shoulders a rest.

+ By the time you come to the end of the Camino de Santiago de Compostela you will have taken a million steps. Even so, with each one you still have to tread carefully and watch where you walk. One single misplaced step may force you to withdraw from the pilgrimage; therefore, especially when you come to uneven terrain, or ground that has lots of holes in it, or loose stones or pebbles on it, you should mind where you step.

+ If you are with someone who walks faster than you, you should not try to keep up with them.

Otherwise, your muscles will be exhausted after just a few hours.

+ Give yourself a hand, both when walking up- and downhill, by using the staff. It will also make the walk less monotonous.

6. HYDRATION

+ It is absolutely essential to hydrate your body well, before, during and after walking (drink three glasses of water one or two hours before beginning the next stage; two 15 minutes before starting it; the equivalent of a glass of water approximately every forty minutes throughout all of the stage; in total, drink two litres of water per day).

+ Drink even before you feel thirsty. This can prevent muscle problems, such as cramps.

+ You should walk no further than 15 kilometres without drinking water.

+ Do not drink water from streams, springs or sources from which you cannot be sure the water is safe to drink.

7. IN STOPS/BREAKS

+ In summer, look for a cool place in the shade.

+ Loosen your shoes and put your feet up.

+ Make the most of the break to eat and drink something (dried fruits and nuts, chocolate, fruit, energy bars, etc.), if you wish, but do so in small quantities, eating enough to replenish your energy.



- + Do not make stops too long (no more than five to ten minutes).
- + If you are cycling, the breaks should be taken away from any motorways or hard shoulders.
- + Breaks made if cycling must be short and not too often.
- + If the day's stage consists of two sessions, take a long stop to eat and replenish your energy.

8. LOOKING AFTER YOUR FEET

- + Make a point of preserving personal hygiene: if you cannot shower at the end of the day, wash your feet carefully; and if there is no water, rub a cream on them that will refresh them and relieve them of fatigue.
- + Put some Vaseline on your feet every day, especially on and between the toes, heels and

soles, every day, before starting the day's travels. This is to stop blisters forming.

+ If you put on trainers, use cotton socks without seams; and if you are wearing boots, as well as cotton socks put on a pair of woollen socks too. These socks must also be clean.

+ It is good to refresh your feet in a fountain or stream for a little while. Be careful to dry them well. The best way to do this is to let the air dry them.

+ What to do if you get a blister: pierce the blister with a hypodermic syringe (piercing the skin in one or two places) and drain all the liquid out of the blister; never cut the skin, since it will protect the injured area. Then place a little gel dressing on the now-empty blister, which will relieve the burning sensation and act as a cushion. Put a plaster over the blister after this, taking care to apply it well and, if necessary, trimming it down to the right size. At the end of the day, you should remove the dressing and plaster, and wash and dry your feet well, then repeat the previous

process, piercing the blister if it has formed again. The next day, before you start the day's travels, put a new plaster and some fresh gel dressing on it.

+ Curing athlete's foot: Athlete's foot is a mycosis (fungi infection) that materializes between the toes and of which of cracked skin between them, painful or otherwise, is the characterizing feature. How to treat it: After washing and drying your feet carefully, spray an antifungal treatment between your toes and leave the air to dry it, then put your socks - cotton always - back on. It is not a good idea to use creams or ointments, for this would keep the parts between the toes humid and the fungi would take advantage of it to grow. You must do this before you begin the day's travels and when you finish them.

9. FIGHTING FATIGUE

+ You must rest when you are not too tired in order to recuperate well; if you walk to the point of exhaustion, the recuperation will be much slower and more difficult.

- + Rest can mean getting enough hours of sleep or letting your mind and body relax for short periods of twenty minutes.
- + If you find you are extremely tired, you should even rest a whole day per week.
- + Drink lots of liquids, including an energy drink which replenishes mineral salts [lost through perspiration and urination], to stop your muscles from tiring.
- + If you or a companion is suffering from heat exhaustion, find a cool place, drink lots of liquid (place half a spoonful of bicarbonate and one of salt in one litre of water and mix it).

10. MORE FREQUENTLY EXPERIENCED INJURIES

The best thing to do in the case of any injury is to go to the nearest physiotherapist. Here in this section, however, is some advice on the injuries

that pilgrims suffer most frequently on the Camino de Santiago de Compostela:

· TENDINITIS OR PULLED MUSCLES (SMALL TEARS IN FIBRES)

+ When you walk 30 kilometres per day, carrying a rucksack, it is not unusual to suffer tendinitis or pull a muscle.

+ Apply a cold pack to prevent inflammation and diminish the pain. If you use ice, do not put it directly on the skin, but place a paper or cloth between the skin and the ice to avoid burns.

+ If the pain is intense, take some Paracetamol, and rub anti-inflammatory cream over the area several times a day.



+ Should the area become inflamed, take an anti-inflammatory, but only ever on a full stomach.

- + If you have tendinitis, seek the help of a physiotherapist in the area.
- + If the injury is a pulled muscle with small tears, you must put a compression bandage on it and consult a doctor and physiotherapist to see if you are fit to continue with the rest of the journey.

· ACHILLES TENDON

- + Achilles tendon is the most frequent form of tendinitis that pilgrims on the Camino de Santiago de Compostela suffer.
- + This injury is characterized by a pain in the back of the heel in the morning, when you take your first steps of the day, that either completely or partly subsides as you carry on walking, but then returns more intense during and after exercise, its intensity becoming greater and greater. The pain also becomes longer and longer lasting, not going away even, until it stops you from exercising or doing other physical activity.

+ On the Camino de Santiago de Compostela the main causes of this injury are the difference in heel heights (especially in the case of ladies used to wearing high-heeled shoes, since the switch to shoes with flat soles forces the tendon to stretch to limits it is not used to); use of footwear of which the soles are too soft; walking on uphill terrain, which may cause the tendons to overstretch, pushing their elasticity to its limits; and, finally, the pressure the footwear itself exerts on the tendon, caused by knee-high boots that are too tightly fastened at the ankles.

+ You can avoid this injury basically by choosing the right footwear. You should use boots with hard soles, without soft shock absorption in the heel, and check that the legs are not high at the back. The legs on almost all good boots today are lower at the back of the heel, precisely to prevent the wearer from suffering Achilles heel. Before you start to use the boots you will walk in on the journey to Santiago de Compostela, you should do stretching exercises for the Achilles tendon, making them gradually more intense. This particularly applies to women who wear high-heeled shoes regularly.

+ If, in spite of everything, you injure yourself, take some anti-inflammatories, put the ice pack on your injury and go to see a physiotherapist.

· SPRAIN (A JOINT INJURY CAUSED BY STRETCHED OR TORN LIGAMENTS)

+ Ankle sprains are the most commonly experienced type of sprain and they happen when you twist your ankle (normally with the foot turning inwards) because you have planted your foot badly on the ground.

+ When this happens you will feel a sharp pain in the outside of your ankle.

+ People normally sprain their ankles when they are walking on uneven ground, especially when walking downhill.

+ If you are carrying lots of things, the excess weight will damage a ligament, maybe even causing it to tear. This would make the injury much worse even.

- + You can avoid spraining your ankles by wearing boots that support the ankle adequately and, of course, by carrying as little weight as possible.
- + Once you sprain the ankle, if the ligament has not torn you can put some ice on the part where it hurts and rest for a day or two. This will be enough.
- + Taking an anti-inflammatory will also help you.
- + A level 2 sprain (one with a partial or complete tear of the ligament) will oust you from the Camino de Santiago de Compostela and send you back on your way home. There will be no other choice.

· INJURY-INDUCED ARTHRITIS, ESPECIALLY IN LOWER LIMBS

- + Micro-traumatism in a joint can create a painful situation that may force you to stop the walk.
- + They are most commonly produced in the knees following prolonged descents.

- + Excessively long stages, prolonged descents (Triacastela!) and carrying a rucksack that is too heavy may lead to these injuries.
- + You can try to prevent this kind of arthritis by planning stages that are not excessively long and keeping the weight of your rucksack to a minimum.
- + If you suffer such an injury, treat it with anti-inflammatories and a cold pack.
- + If you are careful with them, these injuries do not have to be a major problem for you, although they will certainly make the journey somewhat more painful.

11. PRACTICAL ADVICE FOR PEOPLE WITH DISABILITIES

- + Before embarking upon the journey, disabled pilgrims must be in a suitable physical condition that allows them, each day, to cover at a sound rate the many kilometres they face.

+ You should take spare parts for wheelchairs, ferrules for crutches, gloves and, to lessen blisters, a cream or topical medical product.

+ The weight of your rucksack should match the amount of weight you can carry, taking into consideration the uphill stretches to be tackled.

+ Make sure you have a supporting vehicle and embark upon the journey with someone who can support you in the more complicated parts and keep you going.

+ People with a mental disability must travel with someone who understands their particular condition to provide the most specific help possible if necessary.

+ People with hearing impairments should exercise extreme caution when crossing roads, which they will have to do many times on the different routes to Santiago de Compostela.



+ We advise people with visual impairments to walk with a companion at all times, due to the crossings, diversions, unevenness of terrain and all other important aspects that visual impairment may make more complicated.

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