

Supporting Training Initiatives



the otc treatment clinic

Common conditions and their treatment options



This module has been endorsed with the NPA's Training Seal as suitable for use by medicines counter assistants as part of their ongoing learning. Complete the questions at the end to include in your self-development portfolio



Welcome to *TM's* OTC Treatment Clinic series. This handy, four-page section is specially designed so that you can detach it from the magazine and keep it for future reference.

Each month, *TM* covers a different OTC treatment area to help you keep up-to-date with the latest product developments. In this issue, we focus on topical pain relief. At the end of the module there are multiple choice questions for you to complete, so your progress can be monitored by your pharmacist.

You can find out more in the *Counter Intelligence Plus* training guide.

The last six topics we have covered are:

- Eye care
- Head lice
- Acne
- Hayfever
- Ovulation & pregnancy
- Smoking cessation

You can download previous modules from www.tm-modules.co.uk

module 209

topical pain relief

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for this module

OBJECTIVES: After studying this module, assistants will:

- Be familiar with common causes of musculoskeletal pain
- Be able to advise on OTC products to help relieve common ailments
- Know when to recommend cold or heat therapy
- Know which customers to refer to the pharmacist
- Be able to offer self-care tips to prevent further injury.

Our recent warm summer no doubt left many people raring to get outside. Some customers may have been playing extra rounds of golf or finally tackling those long-neglected gardening jobs. Or perhaps all that sunshine convinced them to take the dog for a long walk after work, or even go for an impromptu jog around the park.

Fresh air and physical activity help to improve our health and are great stress busters. But one of the downsides of extra activity can be an increase in muscular aches and pains.

This month's OTC Treatment Clinic focuses on topical pain relief and the conditions that are most likely to be relieved by this sort of treatment. We will discuss common painful conditions, including back pain, strains, sprains and osteoarthritis. We will also look at the OTC treatments that are available, and pass on some self-care tips that you can offer customers to help prevent and treat their injuries.

Different types of pain

Pain is something we've all experienced – a bumped elbow, cut finger or a pulled muscle are all common causes of pain. Healthcare professionals (HCPs) tend to classify pain by its origin. This module will focus mainly on musculoskeletal pain, which is pain, soreness or discomfort felt in the muscles or joints, such as a twisted ankle or pulled hamstring.

Pain can also be classified by its duration:

- Acute pain is short-term, e.g. a sprained ankle
- Chronic pain is long-term, e.g. arthritis.

Pain happens for a reason and shouldn't be ignored. It's also very common and can interfere with normal, everyday activities. According to Arthritis Research UK, musculoskeletal pain affects a large proportion of the population. One study found that 69 per cent of women and 66 per cent of men aged 50-59 had experienced pain lasting a day or longer at some point during the previous four

reflective exercise

Alfie, 17, plays football and comes to the pharmacy asking for advice on how to treat an injury. He says that he strained his knee a year ago and although it is better now, at the time it left him unable to play for several weeks and he is worried this may happen again. A friend recommended ice to treat strains, but he's also heard that a heat rub can speed up the healing process.

What would you recommend?

Ice can be beneficial during the early stages of injury, when the tissues are stretched and the blood vessels are torn or damaged. Ice or cold therapy helps to relieve pain following injury to muscles and joints. Ice should be applied immediately after the injury and as part of the PRICEM technique. Heat therapy should only be applied once the swelling, inflammation and heat produced from the affected area have gone down.

Offer Alfie a cold and a heat product to take with him. Show him which products you stock and the different formulations available, including sprays, gels and creams.

What if:

Alfie returns to the pharmacy a week later complaining of a sore, stiff feeling in his legs. He tells you he played a vigorous football match a few days earlier.

What would you recommend?

This could be a case of delayed onset muscle soreness (DOMS). Reassure Alfie that the feeling should pass within a few days and may even improve his athletic performance. If he is in a lot of discomfort, recommend a heat treatment or a topical NSAID.

What if:

Alfie tells you he has asthma, which has

affected the medicines he has been able to use in the past.

What would you recommend?

In this case, a topical NSAID may not be suitable for Alfie. Anyone with aspirin-sensitive asthma should not use a topical NSAID or a preparation containing a salicylate. There is cross-sensitivity between aspirin and NSAIDs, and topical NSAIDs can be absorbed into the bloodstream. Refer Alfie to the pharmacist, who may choose to consult Alfie's doctor before recommending a product.

What if:

As well as suffering from DOMS, Alfie strained and grazed his knee during his recent football match. Although it is painful, the injury is clean and shows no sign of infection.

What would you recommend?

Topical NSAIDs should not be applied to broken or irritated skin. Recommend an oral painkiller instead.

What if:

Alfie asks you if there's anything he can do to reduce the risk of pain and stiffness for future football practice and matches.

What would you recommend?

If Alfie is new to the sport, his muscles and joints will probably adapt to playing football in a short while. However, a healthy diet and lifestyle will help. Omega-3 fatty acids, found in oily fish such as salmon and mackerel, have a role in maintaining joint health. For vegetarians and people who don't like fish, there are various food supplements available that contain fish oils. Taking the time to do a pre-exercise warm up and post-exercise stretch (cool down) may also reduce the risk of injury.

- Problems with the spinal discs: these act like cushions between the vertebrae and cause pain if they bulge, rupture or slip
- Conditions affecting the vertebrae: scoliosis, where the spine curves to the side, can cause back pain. Arthritis and osteoporosis can also affect the lower back
- Pre-existing conditions: pain from other conditions may be felt in the lower back. These include kidney infections or stones, endometriosis, ovarian cysts, uterine fibroids, and cancer of the spine, as well as pregnancy.

For the majority of people, back pain is not serious and will usually resolve within six weeks. However, BackCare estimates that in up to seven per cent of cases, acute back pain becomes chronic. Sufferers should be referred to the pharmacist if they have:

- Severe pain that does not improve with rest
- Pain following an injury or fall
- Numbness or tingling
- Pain with fever, weakness, trouble urinating or unexplained weight loss
- Swelling or redness on their back.

● Shoulder and neck pain

According to NHS Choices, shoulder disorders affect around three in 10 adults at any one time. Among older people, frozen shoulder is common and restricts the normal movement of the joint. The rotator cuff, a group of muscles and tendons that surround the shoulder joint, can also be affected.

Shoulder instability, where the shoulder has an usually large range of movement, and injury to the joint at the top of the shoulder can also occur. This is more common in younger people and those who take part in sports or activities involving repeated shoulder movements.

A painful, stiff neck can be caused by sleeping in an awkward position, using a computer keyboard for long periods of time or even sitting in a draft. Anxiety and stress can also cause tension in the neck muscles, leading to neck and shoulder pain.

Most cases of neck and shoulder pain are minor and will resolve with time. However, anyone suffering severe or persistent pain, or whose symptoms came on suddenly or relate to an accident or fall, should be referred to the pharmacist.

● Osteoarthritis

Osteoarthritis (OA) is the most common type of arthritis in the UK. According to Arthritis Research UK, 8.75 million people in the UK have sought treatment for OA. This includes a third of people over 45, as well as 49 per cent of women and 42 per cent of men aged 75 and older.

Osteoarthritis occurs when there is wear and tear damage in and around the joints. It most commonly affects the knees and hips, but can also occur in the spine and small joints of the

weeks. Meanwhile, a separate study revealed that chronic pain, which persists continuously or intermittently for more than three months, affects at least 10 per cent of the population.

Common causes of pain

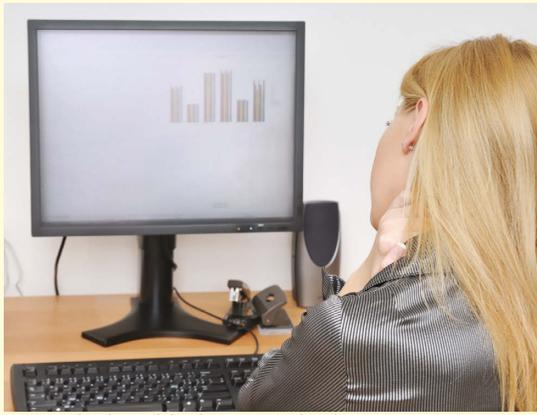
● Back pain

Back pain, particularly affecting the lower back, is one of the most common causes of pain in the UK. According to BackCare, the charity for back and neck pain, an estimated four out of five adults will experience back pain at some stage in their lives.

The peak age for back pain is between 35 and 55. While anyone may suffer, some factors increase a person's risk. These include being overweight, having poor posture, smoking or a family history of back problems. Heavy manual labour can also increase the risk of back pain, as can having a desk job where the workstation is poorly designed.

While the cause of lower back pain may not always be clear, common causes include:

- Muscle or ligament strain: this may occur after an accident or fall, or following repeated heavy lifting or sudden, awkward movements



Using a keyboard for long periods of time can cause a painful, stiff neck

hands and feet. Changes within the joint lead to pain, inflammation, stiffness and swelling.

There is no cure for osteoarthritis, but symptoms can be eased with effective pain relief. However, in severe cases, surgery may be required to replace or fuse the affected joint.

While it's not possible to avoid OA altogether, looking after joints can help to minimise the risk of developing it.

● **Sprains and strains**

Sprains and strains are common, minor injuries affecting the muscles and ligaments around joints. They often occur if a person falls or lands awkwardly and are common during sports, especially if the person over reaches, suddenly changes their direction or speed, or collides with something – or someone!

Sprains occur when one or more of the ligaments supporting a joint gets stretched, twisted or torn. They commonly affect the knees, ankles, wrists and thumbs, with symptoms including pain, swelling, bruising and tenderness. The person may not be able to use, or put weight on, the affected joint.

Strains occur when fibres in a muscle stretch or tear, most commonly in the hamstring muscles or lower back. Symptoms include pain, swelling, bruising, muscle spasms and difficulty using the affected muscle.

To help reduce the risk of sprains and strains, it's important to warm up before exercise and stretch (cool down) afterwards. Wearing the correct footwear and clothing for the activity is also important, as is resting when the body starts to become tired.

While most sprains and strains recover in time, refer to the pharmacist anyone who:

- Is in severe pain, or is unable to move or put weight on the affected joint
- Reports numbness, discolouration or coldness in the injured area
- Has an injury where the affected area looks crooked or has any unusual lumps, other than swelling
- Has unsuccessfully tried several treatments.

● **Pain after exercise**

Customers may try a new piece of equipment at the gym or push themselves a little harder on their daily run only to find themselves suffering the following day. Delayed onset muscle soreness (DOMS) after physical activity is very common, particularly when beginning a new exercise programme or changing the nature, intensity or duration of the activity.

DOMS may be caused by microscopic damage to muscle fibres and many experts believe that this is the body adapting, which in time leads to greater strength and stamina.

DOMS typically occurs a day or two after exercise and lasts three to five days. It can range from mild to severe and anyone, even experienced athletes, may suffer. DOMS rarely requires medical attention, unless the pain is severe or there is pronounced swelling.

Treating an injury

Many experts advise applying **PRICEM**:

- **Protection** – using slings, braces, supports and athletic tape to support the affected area and ensure the injury doesn't worsen
- **Rest** – injuries require time to heal, so customers should take it easy and not make things worse by continuing to use the affected area
- **Ice** – ice packs and cold therapy help to reduce swelling and inflammation, and can numb pain
- **Compression** – compression bandages will stabilise the affected joint and combat swelling
- **Elevation** – lifting the injured area higher than the level of the heart reduces blood flow, minimising swelling and inflammation
- **Medication** – OTC products can help to manage the pain associated with many minor musculoskeletal conditions.

Topical pain relief

While some customers may automatically reach for the oral analgesics to treat muscle or joint pain, it is worth pointing out the topical treatments available and their benefits.

Some people may find that rubbing a cream or gel onto a sore muscle is effective at relieving pain. Alternatively, spray formulations can be useful for hard to reach areas. Whatever option they choose, advise customers to read the manufacturer's instructions carefully and apply the product as directed. Topical products should not be applied to broken or infected skin, or near the eyes, mouth or mucous membranes. Nor should they be applied alongside heat pads or underneath tight bandages. Remind customers to wash their hands thoroughly after using these products too.

● **Topical NSAIDs**

Topical non-steroidal anti-inflammatory drugs

(NSAIDs) such as ibuprofen and diclofenac can help to relieve pain and reduce the redness and swelling caused by inflammation.

Unlike oral NSAIDs, topical products don't carry the same potential side effects (e.g. stomach irritation), and there is growing evidence of their effectiveness in treating chronic conditions like osteoarthritis. In fact, NICE guidelines state that oral paracetamol and/or topical NSAIDs should be considered before oral NSAIDs for osteoarthritis. However, such products may not be suitable for children, pregnant or breastfeeding women, or people with aspirin-sensitive asthma.

Ibuprofen is the most common OTC topical NSAID and is available in gel (e.g. Care Ibuprofen Gel) and spray formats (e.g. Ibuleve Speed Relief Spray).

Diclofenac is available in topical products including Voltarol Emulgel P and Voltarol Pain-eze Emulgel.

Movelat Relief Cream is a mild to moderate anti-inflammatory and analgesic topical preparation that contains salicylic acid along with mucopolysaccharide polysulphate.

● **Rubefacients and counter-irritants**

These ingredients act as irritants and produce a warm feeling in the affected area, which some people find soothing. Common examples found in OTC products include salicylates and nicotines along with menthol, camphor,

self care tips

- Exercise regularly and include weight-training activities that strengthen the muscles supporting major joints
- Maintain a healthy weight and ensure a balanced diet with sufficient amounts of calcium and vitamin D exposure
- Be aware of your posture, especially when standing, lifting heavy objects or sitting at a desk
- Consider the quality of your mattress – old or sagging mattresses will not provide sufficient back support
- If you sleep on your side, place a pillow between your knees for support. If you sleep on your back, place a pillow underneath your knees
- Gradually introduce new exercises and physical activities, ensuring you warm up before and stretch (cool down) afterwards
- Avoid being sedentary for long periods of time
- Listen to your body. Know when to slow down, take rests and avoid overdoing things.

eucalyptus and turpentine oil. There are various OTC brands available, including Algesal and Deep Heat. Such products are available in cream and spray formulations.

Capsaicin occurs naturally in cayenne pepper and warms the skin when applied to sore muscles and joints. OTC products containing this ingredient include Radian B Muscle Rub and Ralgex Cream.

Such products should not be applied to broken or inflamed skin and users should avoid contact with eyes, lips and other sensitive areas. Hands should be washed thoroughly afterwards and use should be discontinued if persistent skin irritation develops.

● Complementary treatments

Arnica Ointment is a popular OTC treatment choice, particularly for bruises and swelling after injuries. Products include Weleda Arnica Ointment and Nelson's Arnicare range.

Tiger Balm is another complementary treatment option which can be used by adults and children from two years of age to soothe sore and aching muscles.

Ice and heat therapy

Ice and heat therapy can provide effective pain relief, but it's important to apply the correct temperature at the right time. People with diabetes, those with active infections or anyone with poor circulation should not apply cold or heat packs unless medically advised.

● Ice

Ice is most effective when used within the first 48 hours after an injury. When applied immediately, ice helps to reduce bleeding in the tissues, and prevents and minimises swelling. It can also relieve pain by numbing the affected area. As the injury begins to heal, ice can be applied to further reduce pain and muscle spasms.

Various ice products are available that can be stored in the freezer until needed. Alternatively, ice packs can be made from ice cubes wrapped in a plastic bag or wet tea towel. Packs of frozen vegetables like peas are a good option as they mould to the shape of the affected area. If using frozen vegetables, note that they are not suitable for refreezing and eating once thawed.

Ice can cause frostbite if the skin is not properly protected. To protect the skin:

- Don't apply ice directly to the skin. Rub a small amount of oil over the area where the ice will be applied and place a cold, wet flannel over the oil before applying the ice
- If the skin is broken or there are stitches, don't apply oil, but protect the area with a plastic bag
- After five minutes, check the colour of the skin. If the skin is bright pink or red, remove the ice. If not, replace it for a further five to 10 minutes
- Ice should not be applied for longer than 20-30 minutes. Take frequent breaks and reapply when the surrounding skin looks and feels normal (around 30-60 minutes).

OTC products that are designed to cool and provide relief from sprains and sore muscles

include Ralgex Freeze Spray and Deep Freeze Cold Spray and Gel.

● Heat

With the exception of muscle spasms associated with lower back strains, heat should not be applied until 48 hours after an injury has occurred. Heat causes blood vessels to dilate, bringing more blood to the affected area, which stimulates the healing of the damaged tissues. Heat also helps to relax muscle spasms and ease stiffness. To avoid burns or scalds:

- Place a towel between the heat and the skin
- Check the skin regularly
- Apply products that are warm, not hot
- Don't use a heat pad while sleeping – prolonged heat can cause burns if unattended
- Heat should not be applied for longer than 30 minutes.

Heat can be applied in the form of heat pads, hot water bottles or heat lamps, but even a warm bath or shower can help. Various heat pads and patches are available OTC for muscle, back and shoulder pain and should be applied directly to the skin over the affected area.

More information

- Arthritis Research UK: 0300 7900 400/ www.arthritisresearchuk.org
- BackCare: 0208 9775 474/ www.backcare.org.uk. BackCare Awareness Week 2014 takes place on 6-12 October and will focus on the prevention of back and neck pain.

assessment questions: topical pain relief

For each question, select one correct answer. Discuss your answers with your pharmacist.

1. Which of the following statements is FALSE?

- a) Musculoskeletal pain is aching, soreness or discomfort felt in the muscles and joints
- b) Acute pain is short-term (e.g. a sprained ankle)
- c) Chronic pain is persistent or long-term, such as that which occurs with osteoarthritis
- d) Pain is common and can safely be ignored, as it will always resolve itself eventually

2. Which of the following may cause lower back pain?

- a) Falling awkwardly while playing sport
- b) A slipped disc between two vertebrae in the spine
- c) A urinary tract infection (UTI) that affects the kidneys
- d) All of the above

3. Which of the following statements is TRUE?

- a) Anxiety and stress can cause tension in the neck muscles, resulting in back and shoulder pain
- b) Osteoarthritis is a rare condition that usually affects younger people
- b) A customer with a severe sprain that they can't put weight on does not require referral to the pharmacist
- d) Suffering delayed onset muscle soreness (DOMS) is a sign that the individual should not continue with any type of exercise

4. Which of the following does NOT apply to topical pain relief products?

- a) Topical pain relief products should always be a second choice treatment option after oral painkillers
- b) Topical products should not be applied to broken or infected skin, or near the eyes, lips or mucous membranes
- c) Topical NSAIDs carry the same risk of stomach irritation as oral treatments
- d) It's important to wash hands thoroughly after applying topical products, particularly rubefacients and counter-irritants

5. Which of the following statements about ice and heat therapy is TRUE?

- a) Ice is more effective for older injuries and should not be used within the first 48 hours
- b) People with diabetes or poor circulation should not apply ice or heat therapy unless medically advised to do so
- c) Ice and heat packs are more effective the longer they are left in place, so users should avoid taking breaks when using them
- d) Heat packs should be applied as soon as possible to sprains and strains

6. Which of the following are good lifestyle tips to help keep muscles and joints healthy?

- a) Stay active and regularly practice exercises that strengthen the muscles supporting major joints
- b) Maintain a healthy weight
- c) Ensure a healthy, balanced diet with sufficient calcium intake and vitamin D exposure
- d) All of the above