

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:

- Smoking cessation
- Oral care
- Daily fatigue and stress
- Dry skin and eczema
- Insomnia
- Coughs

You can complete previous modules online at: www.tmmagazine.co.uk

module 216

topical pain relief

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for this module

OBJECTIVES: After studying this module, assistants will:

- Be familiar with the common causes of musculoskeletal pain
- Be able to advise on the OTC products available to help relieve common symptoms
- 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 injury.

Countless charity campaigns and awareness weeks promote the importance of living a healthy, active lifestyle. Yet few of us focus on the unexpected muscular aches and pains that can accompany that trip to the gym or that jog around the park.

According to Pain UK, 10 million people in the UK live with pain. For some, this is the result of a serious, chronic condition such as cancer, whereas for others it comes from poor posture or sleeping incorrectly, and for many it's due to a sprain or strain contracted during sport. Whatever the cause, this month's OTC Treatment Clinic focuses on the topical pain relief products available to help ease pain and the self care tips you can pass on to customers.

Different types of pain

Pain is something we've all experienced – a bumped elbow, cut finger or a pulled muscle are all common causes. Healthcare professionals (HCPs) often classify

pain according to its origin. Here, we mainly focus on musculoskeletal pain, which is pain, soreness or discomfort felt in the muscles or joints (e.g. 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 occurs for a reason and should not 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 revealed that 69 per cent of women and 66 per cent of men aged 50 to 59 had experienced pain lasting a day or longer at some point during the previous four weeks. 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.

reflective exercise

Sue, 55, comes to the pharmacy for a product to ease her back pain. She has been gardening recently and giving the house a thorough clean. She also has an office job that she drives to every day. She's reluctant to take painkillers as she doesn't like the idea of relying on tablets.

What would you recommend?

This sounds like a case of extra and unaccustomed manual activity putting a strain on Sue's back. Check Sue's posture and ask if she's been doing any heavy digging in the garden. When crouching down, Sue should maintain a straight back to avoid bending.

At work, Sue should check that her chair is suitable. At home, an upright chair may be the best option while relaxing in the evenings. Sue should ensure her car seat is comfortable and should work to maintain a correct posture at all times.

It's important to achieve the right balance between rest and gentle activity. Walking and swimming may be suitable exercise options, although breast stroke can exacerbate back pain in some cases.

What if:

Lifestyle changes have been ineffective and Sue requests additional topical pain relief.

A heat pad or hot water bottle may be effective at easing lower back pain, particularly while at home in the evenings. While at work, recommend that Sue tries a topical analgesic gel or a spray formulation for hard to reach areas, such as her lower back.

What if:

Sue returns to the pharmacy two weeks

later saying that although her back pain has improved, she has developed a pain down her left leg and a tingling sensation in her foot. She adds that although the pain is agonising, it tends to come and go.

Considering Sue's earlier symptoms, she could be suffering from sciatica, which occurs when a spinal disc presses on the sciatic nerve. Cases of sciatica often resolve on their own, although this can take several weeks. Refer Sue to the pharmacist, who may refer her to a GP.

What if:

Between referrals, the pharmacist recommends that Sue purchases an analgesic. However, you know that she has asthma.

Paracetamol is a suitable painkiller for Sue. She can take this as well as applying heat therapy. Encourage Sue to be cautious of her posture and to continue doing gentle exercise when the pain subsides.

What if:

While in the pharmacy, Sue asks if she should be taking vitamin supplements.

Considering her age, Sue is likely to be post-menopausal and may benefit from taking calcium and vitamin D supplements. Following the menopause, women can suffer from reduced bone density and a heightened risk of osteoporosis. Nutrients including calcium, vitamin D, magnesium, copper, zinc, vitamin C and vitamin K are all essential for maintaining healthy bones throughout life.

Recommend that Sue takes a calcium and vitamin D supplement, as well as a multi-vitamin and mineral supplement. Check the quantity of calcium and vitamin D in the multivitamin supplement to ensure that Sue doesn't take too much.

(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. Pregnancy is another common cause.

For the majority of people, back pain is not serious and usually resolves 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
- Pain following an injury or fall
- Numbness or tingling
- Pain alongside fever, weakness, difficulty urinating or unexplained weight loss
- Swelling or redness on the 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) or injury to the joint at the top of the shoulder can also occur. This is more common in younger people and those who play 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 simply sitting in a draft. Anxiety and stress can also cause tension in the neck muscles.

Most cases of neck and shoulder pain are minor and 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 over.

OA 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 hands and feet. Changes within joints lead to pain, inflammation, stiffness and swelling.

There is no cure for OA, although symptoms can be eased with effective pain relief. In severe

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 experience back pain at some stage.

The peak age to experience back pain is 35 to 55 and while anyone can suffer, certain factors increase an individual's susceptibility. These include being overweight, having poor posture, smoking or a family history of back problems. Heavy manual labour can also

increase the risk of suffering back pain, as can having a desk job with a poorly designed workstation.

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

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

cases, however, surgery may be required to replace or fuse the affected joint.

While it is not possible to avoid OA altogether, looking after joints can help to minimise a person's risk.

● **Sprains and strains**

Sprains and strains are common, minor injuries that affect the muscles and ligaments around the joints. They often occur if a person falls or lands awkwardly, and they 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. Sprains 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 the 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 to stretch (cool down) afterwards. Wearing the correct footwear and equipment for the activity is also important, as is resting when the body feels fatigued.

While most sprains and strains heal 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 the 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, including



Stretching before and after exercise can help to reduce the risk of injuries

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 aggravate things 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 stabilise the affected joint and combat swelling
- **Elevation** – lifting the injured area higher than the level of the heart reduces blood flow, which minimises swelling and inflammation
- **Medication** – OTC products help to manage the pain associated with many minor musculoskeletal conditions.

Topical pain relief

While oral analgesics may be the preferred treatment option for some patients, others may prefer to apply a topical product.

Some customers 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 formulation 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. They should also not be applied alongside heat pads or underneath tight bandages. Remind customers to wash their hands thoroughly after application.

● **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.

Compared to oral NSAIDs, topical products carry reduced risks of potential side effects such as stomach irritation, and there is growing evidence of their effectiveness at treating chronic conditions, including OA. In fact, NICE guidelines state that oral paracetamol and/or topical NSAIDs should be considered before oral NSAIDs for OA. However, topical products may not be suitable for children, pregnant or breastfeeding women, or people with aspirin-sensitive asthma. If in doubt, check with the pharmacist.

Ibuprofen is the most common OTC topical NSAID and is available in gel (e.g. Nurofen 5% Gel) and spray formats (e.g. Ibuleve Speed Relief Spray).

The NSAID 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 mucopolysaccharide polysulphate and salicylic acid.

self care tips

- Exercise regularly and include weight-training activities
- Maintain a healthy weight and ensure a balanced diet with a sufficient intake of calcium and vitamin D
- 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 do 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. Ensure 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 and rest
- Wear appropriate footwear – avoid high heels and totally flat shoes.

● **Rubefaciants 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 nicotinates along with menthol, camphor, 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 include Radian B Muscle Rub and Ralgex Cream, which contain capsaicum oleoresin.

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

● **Complementary treatments**

Arnica ointment is a popular OTC treatment, particularly for bruises and swelling after contusions. Products include Weleda Arnica Ointment and Nelson's Amicare 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 applied within 48 hours after an injury. Immediate application 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 required. Alternatively, ice packs can be made from ice cubes wrapped in a plastic bag or damp tea towel.

Ice can cause frostbite if the skin is not properly protected. So pass on these tips to customers to help them protect their skin:

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

OTC products that are designed to cool and relieve 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 damaged tissues. Heat also helps to relax muscle spasms and ease stiffness. To avoid burns and scalds:

- Place a towel between the heat and the skin
- Check the skin regularly
- Apply products that are warm rather than hot
- Don't use a heat pad while sleeping – prolonged heat can cause burns if unattended
- Apply heat for a maximum of 30 minutes or according to the manufacturer's instructions.

Heat can be applied in the form of heat pads, hot water bottles or heat lamps, but a warm bath or shower can also be effective.

There are a number of heat patch products available OTC, including Voltarol Thermal Patch, Nurofen Express Heat Patches and Deep Heat Heat Patches.

More information

- Arthritis Research UK: 0300 7900 400 www.arthritisresearchuk.org
- BackCare: 0208 9775 474 www.backcare.org.uk

assessment questions: topical pain relief

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

1. Which of these statements is FALSE?

- a) Musculoskeletal pain is pain, soreness or discomfort felt in the muscles or joints (e.g. a twisted ankle)
- b) Acute pain is long-term (e.g. arthritis)
- c) Pain occurs for a reason and should not be ignored
- d) Back pain, particularly lower back pain, is one of the most common causes of pain in the UK

2. Which of these statements is TRUE?

- a) According to BackCare, one in five adults experience back pain at some point in their lives
- b) The peak age to experience back pain is 25 to 45
- c) Everyone is equally as likely to suffer from back pain. There are no recognised risk factors
- d) For the majority of people, back pain is not serious and usually resolves within six weeks

3. Which of the following is NOT recommended when treating an injury?

- a) Protect, support and rest the affected area to ensure the injury doesn't worsen
- b) Apply ice packs and cold therapy to help reduce swelling and inflammation, and numb pain
- c) Keep the injured area below the level of the heart to reduce swelling and inflammation
- d) Take OTC analgesics to help manage any pain

4. Which of the following treatment options can be applied topically to relieve pain?

- a) NSAIDs
- b) Rubefaciants and counter-irritants
- c) Complementary treatments
- d) All of the above

5. When it comes to applying ice therapy, customers should:

- a) Not apply ice directly to the skin but rub a small amount of oil over the area and place a cold, damp flannel on top. If the skin is broken or there are stitches, replace the oil with a bag
- b) Leave the ice in place for at least 50 to 60 minutes
- c) Avoid taking breaks and allow the ice to sit on the injured area
- d) Only apply ice 48 hours after the injury has occurred and once the area has been treated with heat therapy

6. Which of the following is a recognised self care tip to help prevent musculoskeletal pain?

- a) Exercise regularly and include weight-training activities to strengthen muscles that support major joints
- b) Quickly and regularly introduce new exercises to keep muscles strong
- c) Be sedentary for long periods of time to allow muscles to recover
- d) If you experience an injury, continue to push yourself as normal