SKELETAL & MUSCULAR SYSTEMS

LESSON 11



Self-Reliance in Health Course

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The skeletal system serves several important purposes: it gives the body shape and support, protects vital organs and the spinal cord, stores lipids, marrow, and minerals, and produces blood cells. Ligaments are also part of the skeletal system, connecting bones to one another with tough, fibrous collagen fibers and holding them in place at the joints. While it's actually the muscles that produce movement, ligaments play a vital supporting role — stabilizing the joints and keeping everything working together as the body moves.

Muscles are made of fibrous, stretchy tissue that attaches to bones and organs throughout the body. Connected to bones by tendons, muscles give the body the strength and power to move. They also help certain organs function properly.

Bone and Muscle Care

Diet and exercise are the key to a healthy skeletal and muscle system. As with all the other body systems, follow good nutritional practices from *Lesson 1* and gut health from *Lesson 2*.

- Bone broth strengthens bones, joints, ligaments, and tissue in addition to helping with pain and inflammation.
- Raw honey increases calcium absorption.
- Ghee
- Calcium rich foods and herbs are the building blocks for a strong bones and muscles *Lesson 6*
- Sugar leaches calcium from the bones and blood so avoid when possible.
- Be mindful of foods that can interfere with the body's absorption of calcium such as red meat, soft drinks, alcohol, and caffeine.
- Regular exercise builds bone density, increases strength, retains coordination and balance to prevent falls that could result in injury.
- Vitamin D assists in the absorption of calcium and plays an essential role in bone health. Sunshine helps the body produce vitamin D and it is also found in fatty fish, fish oils (cod liver, tuna and salmon are highest), sardines, eggs, avocados, and mushrooms.
- Sulfur-containing foods are used to repair and rebuild bone, cartilage, and connective tissue, and aids the absorption of calcium. They include asparagus, eggs, garlic, and onions.
- Osteo Blend
- Alterative herbs (blood cleansing) are helpful for joint pain and inflammation; they should be used consistently over a long period of time for best results.
- Nutrient rich foods; seaweeds, oats, spinach, green leafy, etc.

Nutritive herbs nourish and build body tissue, supplies substantial amount of nutrients and aid in building and maintaining the body. Use these herbs for all conditions in the body and to build and strengthen bones and muscle tissue.

- Alfalfa
- Algae (kelp, spirulina, etc.)
- Chickweed (also anti-inflammatory)
- Dandelion
- Lambs quarter
- Marshmallow (also anti-inflammatory)
- Nettles
- Purslane
- Parsley
- Red clover
- Red raspberry leaf
- Horsetail
- Rosehips

Bone Conditions

Joint Pain and Inflammation

Joint pain and inflammation — commonly known as arthritis — are considered rheumatic conditions in the body, referring to a group of more than a hundred types of arthritic diseases. Symptoms include pain, stiffness, swelling, bone spurs, diminished range of motion, deformity, redness, and sometimes warmth. There is no known cure — only ways to treat the pain and inflammation associated with it.

- Consume a whole foods diet while avoiding sugar, processed foods, and junk food. Lesson 1
- Follow bone and muscle care above.
- Keep within the normal weight limits for your height.
- Eliminating inflammation causing foods such as coffee, alcohol, chocolate, and dairy can help.
- Water exercise can help keep you active while keeping pressure off your inflamed and painful joints.
- 2 Tbsp of flaxseed oil a day.
- Golden goodness mix, 1 tsp to 1 Tbsp as a daily tonic.
- Foods that can relieve pain and inflammation: cherries, pineapple (fresh), peppers, ghee, bone broth, peppers, pomegranate, papaya, celery, cabbage, most spices, black pepper.
- St. John's wort oil

- Kloss's Liniment (rub into area of concern)
- Pain Salve
- Bone and Muscle Salve
- Hot bath with Epsom salts (add one of the pain-relieving herbs or essential oils from Lesson 10.
- Pain management from Lesson 10.

Anti-inflammatory herbs reduce inflammation which helps relieve pain and swelling. They are used both internally and externally.

Aloe vera
Borage
Cayenne
Calendula
Chammomile
Comfey
Garlic
Ginger
Elder flowers
Mullein
Nettles
Peppermint
Rosemary
Sage
Self-heal
St. John's wort
Thyme
Turmeric
Wormwood

First Aid

First aid check list
1 - Stay calm and think before acting, keep a positive attitude.
2 - Check for breathing and heartbeat.
3 - Check for bleeding.
4 - Check for shock, head injury, fracture, cuts, dislocations.
5 - Treat a person while staying calm and kind.
6 - Find shelter (if needed), keep victim warm and calm.

Best First Aid Herbs

Yarrow
Chickweed
Comfrey

Plantain
Lavender
Horsetail
Calendula

Cuts, scrapes, and wounds

Use any of the first aid herbs above as a poultice, wash, compress, oil, or salve.

- First Aid Liniments
- Healing Salve
- Infection Salve
- Burn Salve
- Bentonite Clay
- First Aid Powder

Bleeding - external and internal

- The most effective way to utilize these herbs to stop bleeding internally (nosebleeds or other internal bleeding) is a tincture under the tongue.
    - Shepherd's Purse (I've had amazing success with this one)
    - Yarrow (my next best for bleeding)
    - Plantain
    - Horsetail
    - Nettle
    - Cayenne
    - Comfrey
- Nosebleeds - hold an ice cube in the hand while taking one of the herbs from above internally. Ice pack on the back of the neck is also useful.
- External bleeding is best treated using a powdered herb or the First Aid Powder and pack over bleeding area. Leave on until bleeding stops. A poultice can also be used to pack or cover bleeding area.

Bone and Muscle Injuries

- Use any of the first aid herbs above in a hot bath, poultice, compress, or salve. Comfrey is my favorite herb for tissue regeneration, including bones.
- First Aid Liniments massaged into aching muscles.
- Epsom salt bath (add about 1 cup of salt to a bath of hot water, make it an herbal bath for more healing).
- Hot/Cold Therapy
- Bone & Tissue Builder

- Dr. Christopher's Complete Tissue & Bone Formula (also known as BF&C)
- Bone & Muscle Salve

Bites and Stings

Prevention

- Wear protective clothing. When working in the garden, wear gloves, pants, and long sleeves (if you can handle them). I have a light weight, light colored cardigan I wear, along with yoga pants tucked into my awesome purple garden boots. Not only does this protect me from bug bites and stings, but it also protects me from getting sunburned. You can also tuck your pants into your socks, so those suckers don't try going up your legs.
- Non-toxic bug repellent. I have a tried-and-true recipe we've been using for years around here (see below).
- Apply bug repelling essential oils to clothing, wrists, arms creases, and behind the ears. You can also apply it to ribbons or fabric and hang next to areas you want bug free.

Remedies

- Chew up and apply one of the following herbs: plantain, comfrey, yarrow, lambs quarter, peppermint, chickweed, lemon balm, or basil. (If that grosses you out, you can mash up the herb with a tool or your hands)
- Apple cider vinegar, applied directly to area.
- Apply cucumber slice, banana peel, or sliced potato to area.
- Redmond clay - mix the dry clay with twice as much water in a glass jar and shake until the water is absorbed, consistency should be like ketchup. Place a thick chunk of gel right on the bite, the clay will draw the toxins right out of the bite and the itching immediately ceases. Leave on until it starts to harden then wash off with warm water.
- Raw honey
- First Aid Liniments
- Healing Salve
- Ice pack, cold cloth/compress, or cold herbal pillow (I like lavender).
- Use any of the following drawing remedies.

Drawing herbs and remedies for venomous bites, poisonous plants, splinters, and infection.

- Redmond clay - mix enough water to form a gel and apply to area of concern. Wrap in a gauze bandage and plastic wrap for a couple of hours. Remove and wash clay off with warm water.
- Activated charcoal, mix with water to make a paste before applying.

- Dr. Christopher's Black Ointment Drawing Salve
- Dr. Axe Drawing Salve
- Take echinacea internally in frequent doses.
- Poultices are the best way to utilize the drawing power of these herbs. Compress or bath would be the next best. Also incorporate blood cleansing herbs (*see Lesson 8*) internally while applying these remedies externally.

  Plantain
  Yarrow
  First Aid Powder
  Sagebrush

Burns

Sun, cooking, carpet/rug, water, steam, engine, even the trampoline. Burns are going to happen one way or another so here is a resource list of what you can do to stop the burn and start the healing. Every time we have a burn issue, I reach for my burn spray, followed up with burn salve. They work wonders.

- Flush skin with cold water until pain stops. Keep clean, rinse with lavender water.
- Burn Soother Spray
- Burn Salve
- Comfrey Salve
- Raw honey
- Redmond clay gel
- Vitamin E Oil
- Raw potato or cucumber - slice and apply to burn.
- Egg white, applied to burn in layers.
- Witch hazel or apple cider vinegar (dilute vinegar with water ½ and ½)
- Dr. Christopher Burn Ointment: equal parts raw honey, comfrey powder, wheat germ oil.

Herbs for burns

Prepare by making a tea and putting in a spray bottle to spray down burn, this is especially effective for a sunburn. You could also use a compress, poultice, oil, salve, or bath.

Aloe vera (slice open a leave and apply directly to burn)
Calendula
Comfrey
Lavender
Marshmallow (root and leaves)
Plantain
Rose

St. John's Wort

Infections

When treating an infection, you want to stay on top of it and be as aggressive as the infection. I've had to treat a number of external infections due to injuries, these I change bandages and apply one of the following every hour. I have the person bathe in Epsom salts, bentonite clay, and antiseptic essential oils a couple of times a day in addition to some of the following remedies.

- Use remedies for cuts, scrapes, and wounds from above.
- Use drawing herbs and remedies for external infections.
- Use blood cleansing herbs to aid body in removing infection from the body
- Incorporate antibacterial herbs
- Infection Fighter Formula
- First Aid Liniments
- Dr. Christopher's Plague Remedy
- Four Thieves
- Garlic and oregano

Boils and Skin Eruptions

A boil is a tender, inflamed, postulant area of skin, usually due to staphylococcus infection; furuncle. -Practical Herbalism

I have found that many of these remedies work for any type of skin eruption including blisters, ingrown hairs, acne, etc. These remedies have helped heal and relieve the pain. First rule for healing a boil or skin eruption, is one of the hardest, DON'T SQUEEZE! It is so tempting to help that yucky pus out by squeezing but it could spread staph infection to other parts of the body and can also lead to blood poisoning. The nature of the body will determine how it will treat the boil, it may come out as puss naturally or using remedies below or it may take care of it internally through blood cleansing.

- Take blood cleansing herbs internally while following the drawing remedies above.
- Apply a paste using ½ tsp. ginger powder and ½ tsp turmeric powder or 1 tsp of Golden Goodness Mix add warm water and stir until a paste is formed. Rub the paste in and cover with gauze, leave on for at least a half hour.
- First Aid Liniments
- Raw Honey
- Garlic Oil
- Black Walnut tincture
- Use any of the first aid herbs above. They can be applied as a poultice, compress, salve, or herbal oil.
- Herbal tea preparation or tea bags can be used as the compress, apply 2 times a day for at least 15 minutes.

Resources

The Healing Power of Trauma Comfrey
Healthy Bones and Joints by David Hoffmann
Prescription for Nutritional Healing
Herbs to the Rescue: Herbal First Aid Handbook

Lesson 11 Formulas & Recipes

OSTEO BLEND

Strengthen and builds teeth, bones, joints, and tissue. Use for a preventative for bone deterioration.

Blend together equal parts of the following herbs

- Horsetail
- Red clover
- Cayenne
- Nettle leaf
- Sage
- Rosehips

Make into capsules, tincture, or tea. Recommended dosage would be 2 capsules, 2 dropperful or 2 cups of tea, twice a day.

ALOE ARTHRITIS GEL

This recipe comes from Medicinal Herbs by Rosemary Gladstar:

¼ cup strong comfrey infusion
¼ cup aloe vera gel
5-10 drops essential oil from the pain list *(Lesson 10*)

Mix together and keep refrigerated. Apply topically to joints of concern, massaging it in gently. This will last for up to a week.

ST. JOHN'S WORT OIL

St. John's Wort oil has been used for centuries to massage into sore, aching bones, joints, and muscles. It can be used as a massage oil, or made into a liniment, salve, ointment or balm. In addition to external use it can also be used internally to calm the nerves, aid in sleep, and work internally on inflammation and pain relief (only if no essential oil was used). Use in the kitchen as you prepare your food and meals. Fresh is always best when making an herbal remedy but if you don't have fresh you can certainly use the dried herb. The flowers are where the healing goodies are in this plant, but I throw in

both the leaves and blossoms because it is easier that way. You want to cut the blossoms right before they bloom or just as they are blooming. A good way to tell if they are ready is to squeeze the bud and if a dark red or purple juice oozes out, they are ready and at their top potency level.

Fill a jar ¾ full of fresh blossoms cover with olive oil or carrier oil of choice. Fill with the oil until it comes about an inch above the herb. Follow instruction in the *Methods* section for how to make an herbal oil.

You will notice the oil turns a beautiful red color as the blossoms are infused into it. Strain the herb out and optionally add 1 teaspoon of essential oil for pain, per cup of herbal oil (if using for external purposes only).

FIRST AID POWDER

Not only does this powder staunch bleeding but it also prevents infection and pulls the tissue back together. I have used this for deep cuts from glass, cut fingers with a knife, and teeth through the lip to name a few (of more incidents than I can count). For major bleeding I just continue adding the powder, layer upon layer and then cover with a bandage. As the wound heals the body actually pushes the powder up and out naturally. I have really seen some pretty awesome things happen with this powder!

Equal parts of the following dried, powdered herbs:
- Yarrow
- Comfrey
- Plantain

Store powder in a spice jar for easy sprinkling. Use to staunch bleeding by sprinkling right over cut or wound. Rinse the powder off with warm water once the bleeding has stopped (or apply a bandage right over the powder), pat dry and apply any of the wound remedies above

HEALING SALVE

This particular salve is my favorite for cuts, wounds, scrapes, and any type of skin condition. It is antibacterial and antifungal making it perfect for fighting infection. This would be the herbal equivalent of Neosporin.

Make an herbal infused oil (*Methods section*), with the following herbs:
4 parts lavender flowers
3 parts echinacea root (or Oregon Grape Root or half and half)
3 parts calendula flowers
2 parts plantain
2 parts comfrey
2 parts St. Johns Wort

2 parts yarrow

Pour the herbal infused oil into a pan. Add an ounce of beeswax per cup of oil and melt over very low heat. Remove from heat and cool for a minute or two then add 1 tsp. of first aid essential oil (*see list above*) per cup of oil. Pour into containers until solid, then cap and store in a cool, dry location.

BONE AND TISSUE BUILDER

This formula works wonders for broken bones, stitches and many other injuries resulting in open wounds, bruises, and torn tissue. The combination of these herbs helps rebuild bone and tissue.

6 parts comfrey
3 parts horsetail
3 parts alfalfa
3 parts raspberry leaf
2 parts white oak bark
2 parts plantain
1 part rosehips

This blend can be used internally, externally or my favorite, both. You can make a tincture, herbal capsules, oil and/or salve. I personally like to take it internally to work on building the inside as well as a salve to work from the outside in.

BONE AND MUSCLE SALVE

This salve combines many powerful healing herbs that will aid in soothing sore muscles and healing bones. It is especially effective on sports injuries, and I used it with great results on my grandmother who had a lot of back and hip pain.

Make an herbal oil infusion using olive oil with the following herbs:
3 parts arnica
2 parts calendula
1 part peppermint
1 part St. John's wort
1 part plantain
1 part comfrey

Pour the herbal oil into a small pan and melt 1 oz. of beeswax per cup of herbal oil. Remove from heat and add 1 teaspoon of a pain-relieving essential oil blend (see Pain Essential Oils in *Lesson 10*). Stir to combine and pour into container(s).

BURN SALVE

This salve includes a variety of properties just for healing burns, tissue repair and rebuilding, pain relief, inflammation and skin conditioning. Use the Burn Spray for immediate relief and the Burn Salve for longer term healing and care…they work great together!

Make an herbal oil using the following herbs:
2 parts comfrey
1 part calendula
1 part lavender
1 part St. John's wort
1 part chamomile

For every cup of herbal oil, melt 1 ounce of beeswax in it over very low heat. Remove and cool for a minute, then add 1 teaspoon of lavender essential oil for each cup. Apply liberally to burn as the skin absorbs it. This salve also works wonders on diaper rash and baby skin conditions, eczema, cuts and wounds, rashes, or any type of skin issue.

BURN SOOTHER SPRAY

2 oz aloe vera liquid
2 oz lavender tea, infused in distilled water, lavender hydrosol or plain distilled water
20 drops lavender essential oil
15 drops tea tree

Mix all ingredients together and pour into a 4 oz spray bottle. Keep refrigerated, this not only prolongs the shelf life but adds extra healing for burns and cooling. Spray as often as necessary until pain subsides.

This spray is my go-to for everything. It works amazingly on burns, instantly soothing the pain. We use this for a wound wash, all- purpose owie spray, after sun spritzer, works great on sunburns and for cooling the body down on hot days.

INFECTION FIGHTER

This formula can be used for all types of infections including external cuts and wounds, sores, bug bites, and fungal infections to internal infections of the respiratory and urinary tract.

2 parts usnea
2 parts yarrow
1 part red clover
½ part nettle leaf

¼ part lobelia

Salve: apply as you would an antibiotic ointment on cuts, wounds, sores, or skin infections of any kind. Apply over any internal areas of infection such as the chest for lung issues and abdomen for urinary infections, cover with a hot pad to push further into the body.

Extract/Tea/Capsules: Take internally to treat any infection. The lobelia in the formula will know exactly where to go and what to do.

BUG OFF SPRAY

Mix the following ingredients in a 2 oz. spray bottle. Shake well before each use.
1 oz witch hazel (infuse it with catnip for extra protection) or catnip hydrosol
1 oz grapeseed oil
35 drops citronella essential oil
20 drops peppermint essential oil
15 drops lemon essential oil
15 drops lemongrass essential oil
15 drops cedarwood essential oil

BITE BE GONE SALVE

Formulated to stop the itch, heal the sore and prevent infection from those nasty bites and stings. Not only is this salve great for bug bites I have also used it successfully on my eczema and a case of ringworm, it will work great for any type of cut or wound as well.

Make an herbal infused oil with the following:
3 parts plantain
2 parts echinacea root
1 part comfrey
1 part lavender
1 part rosemary
Coconut oil (or extra virgin olive oil)

For every cup of herbal oil infusion add
1 oz beeswax
20 drops Melaleuca
15 drops blue spruce essential oil
10 drops lavender essential oil
10 drops peppermint essential oil
(or use any of the essential oils listed below)

Melt the beeswax into the herbal oil over very low heat. Remove from heat and add essential oils. Stir to combine well and pour into containers.

First Aid Essential Oils

Tea Tree (Melaleuca)
Eucalyptus
Helichrysum
Lavender
Chamomile
Pine
Rosemary
Eucalyptus
Cypress
Thyme
Oregano
German Chamomile
Mountain Savory
Frankincense
Myrrh
Spikenard

Essential Oils for Bug Repelling & Bites

Basil
Eucalyptus
Helichrysum
Lemon
Lemongrass
Chamomile
Lavender
Citronella
Rosemary
Sage
Thyme
Peppermint

Essential Oils for Burns

Use in a spray bottle of water, compress, bath, or in a carrier.
Lavender
Spikenard
Balsam fir
Helichrysum
Rose
Tea tree
Chamomile

Vetiver
Carrot seed
Geranium

ESSENTIAL OILS FOR INFECTION

Tea tree
Lavender
Eucalyptus
Rosemary
Oregano
Clove
Peppermint
Lemongrass
Frankincense
Pine
Cinnamon