

**Global Fitness Institute**

# **OHS & Infection Control Manual**

Units included:

HLTOHS300B Contribute to OHS processes

HLTIN301C Comply with Infection control policies

## INTRODUCTION TO INFECTION CONTROL AND OHS

Victorian parliamentary legislation that effects Massage operations:

The OH&S Act 1985 <http://workcover.vic.gov.au>

- The aim is that employees have a safe work environment. Infection control, equipment training and information for all staff falls within the responsibility of the employers duty of care.
- Occupational Health and Safety Regulations are the enforceable laws of the OH &S Act.
- Codes of Practice are practical guides, outline of advice for businesses. Employers and employees are advised to read and understand these codes. Examples of Codes for OHS include Manual Handling, Workplaces, First Aid. (See web address above for copies).

The Health Act 1958 <http://www.dms.vic.gov.au>

- Health Regulations (Infectious Diseases) 1990 & 2001. Regulations are implemented by law. Prosecutions can occur if a company is found to be in breach. Massage Clinics are not required to be registered. However, Environmental Health Offices in local Government oversee the implementation of regulations in their area by inspecting businesses who are registered but may also check a massage premises.
- Standards of Practice, like Codes of Practice, act as practical guides outlining procedures to control the spread of infectious diseases. Examples include: Beauty and Electrolysis, Hairdressing, Acupuncture. Massage therapy businesses are encouraged to follow the guidelines outlined in Beauty Standards of Practice where applicable.

<http://www.dhs.vic.gov.au/phb/standardsofpractice/beauty.htm>

The Disability Discrimination Act 1992 and Equal opportunity Act 1984, 1989

- A person can be not discriminated against on the grounds that they have an infectious disease. A person with an infectious disease is required to take measures to protect others from infection.

The Professional Associations for massage practitioners generally have their own Code of Practice. These include broad statements that incorporate the issues outlined in the above legislations, such as infection control, discrimination and OH&S.

## BODY DEFENCES

It's surprising that we are not sick more often than we are considering the constant exposure to microbes. At the beginning of last century the death from infectious diseases was much higher than today. But with advances in the understanding and treatment of disease has meant that patterns of mortality have changed.

Normal healthy individuals have several levels of defence against the invasion into the body from pathogenic organisms. These barriers are:

1. Natural Resistance – Non specific
  - First line of defence (superficial)
  - Second line of defence (internal)

2. Acquired Resistance – Specific

- Third line of defence:

In this unit your Assessment 5 requires you to investigate: Cell-mediated immunity and antibody-mediated immunity.

### FIRST LINE OF DEFENCE

This involves the superficial barriers to microbe invasion and the prevention and removal of settlements. These consist of three types:

1. Mechanical barriers
2. Chemical barriers
3. Microbial (normal flora) barriers

- Mechanical Barriers

They include epidermis structure, hairs and bristles, sweeping cilia cells. Think of coughing, sneezing, vomiting and diarrhoea. All of these actions act to seal or dislodge microbes that may be problematic to the body.

Fluids and mucus also provide mechanical protection by entrapment and washing away organisms from out of and away from the body. Consider the action of nasal and oral fluids, ear waxes and oils, tears, urine, sweat and sebum, genital and anal mucus.

- Chemical Barriers

The majority of pathogenic organisms have specific chemical requirements if they wish to thrive. Mostly they do not tolerate acidic and salty fluids. For just this reason we have acidic and salty fluids such as salty sweat, stomach acid, fatty acids and sebaceous oils in epidermis tissue. Enzymes in many fluids have the ability to dislodge the attached capsule of bacteria and puncture their cell walls. These enzymes include lysozymes in sweat and tear fluid, hydrolases in epidermal secretions and amylase in saliva.

- Microbial Barriers

Normal body flora are permanent residents of our body. They are particularly good at tolerating the otherwise hostile defences of our body. Like all habitats in nature, they want us for themselves and possess their own systems for eliminating competition from other organisms for food, moisture and a place to live. It is in our interests to culture the more acceptable residents that will do us no harm and will fight to keep potentially harmful microbes at bay. Normal body flora keep competitors at bay by:

- ☐ Overcrowding
- ☐ Out-competing for limited food
- ☐ Chemically altering the surroundings
- ☐ Chemically attacking foreign microbes with enzymes, toxins and antibiotics.

We acquire these microbes needed for protection as soon as we are born. Every surface of our body becomes “painted” with microbes at birth. As we grow, every person who touches us or comes near us can introduce their own microbes. If some of these microbes are pathogens then we are in trouble.

The types of microbes, (good and bad), is also determined by our general health and diet. As we are very olfactory animals, smells resulting from microbes give us cues as to the health and hygiene of others and we modify our behaviour accordingly. Acceptance or rejection of another human is sometimes based on the organisms of their normal body flora and the pathogens they may have acquired.

## SECOND LINE OF DEFENCE

Once pathogens have penetrated our first line of defence they are “in”. A second internal system then comes into action. This is called our Inflammatory Response. This involves the chemical defences system of tissues and blood. Some of the actions involved in the chemical response involves salt, sugar acidity, alkalinity and oxygen levels being adjusted. Proteins involved in clotting and wound repair, as well as the proteins called immunoglobulins. Some chemicals activate leucocytes into action eg histamine.

Body temperature is also critical in the proper activation and functioning of these chemicals. Likewise our high body temperature alone is not enough to kill off some pathogens.

Question:

What does a high temperature indicate to us about our health or ill health?

The second line of defence also includes the cellular response from the body. Leucocytes (white blood cells), play a crucial role in controlling pathogens and cleaning up when they become damaged and die. If they weren't cleaned up they could cause death. From your Anatomy and Physiology studies you would remember leucocytes are divided into 3 categories:

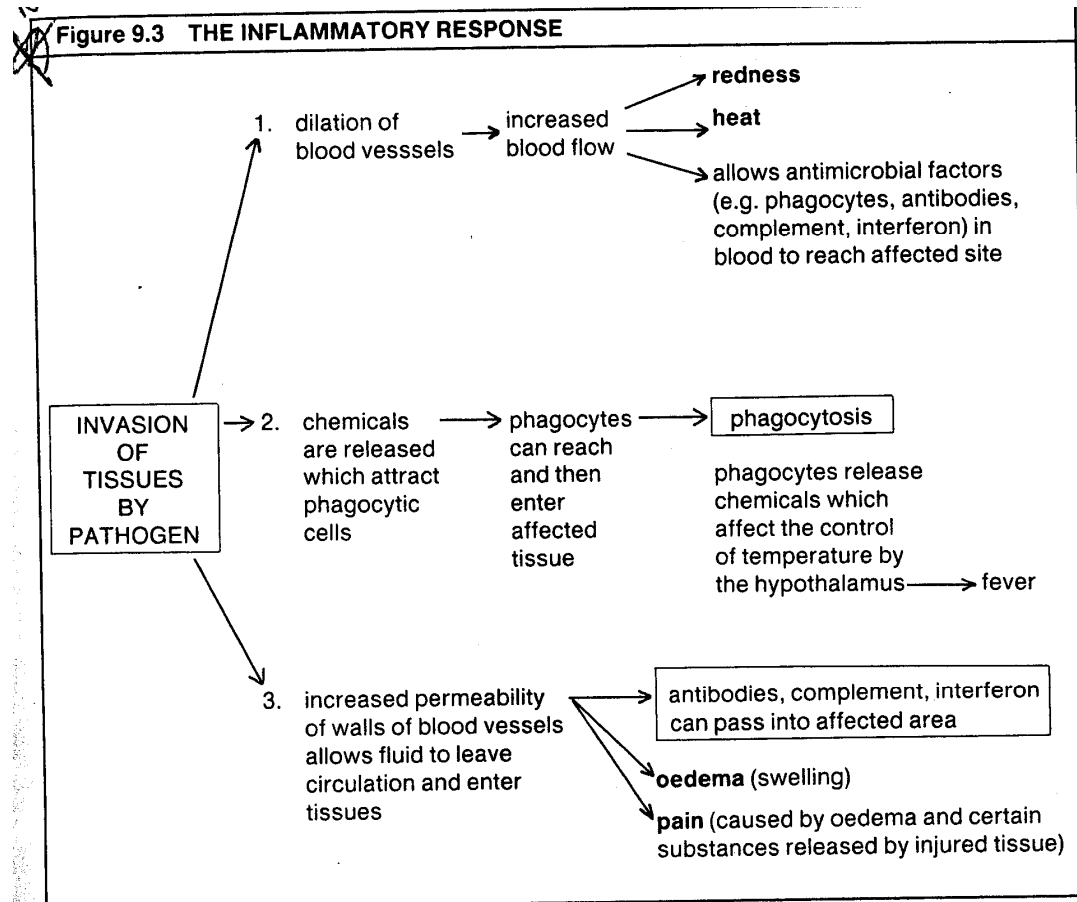
1. Granulocytes – some are phagocytic and some release toxins that attack microbes.
2. Monocytes – also phagocytic and wander around.
3. Lymphocytes – involved in specific immunity.

Phagocytes are attracted to areas by the chemical histamine. They travel to the area and the digestive enzymes within the cytoplasm consumes the foreign pathogen. Pus is an accumulation of waste material that has been too much for the phagocytes to deal with but they will given time.

## The Inflammatory Response

The build up of “alarm chemicals” produced in this biological warfare is a way of isolating the spread of infection. The symptoms are:

1. Heat – from increased blood flow
2. Swelling – fluid accumulation from changes in vessel permeability
3. Redness – from increased blood supply as vessel dilate
4. Pain – as a consequence of fluid pressure on sense receptors and chemicals on pain nerves.



### NAMING MICRO-ORGANISMS

A distinction should be drawn between diseases and organisms.

Infectious diseases are caused by pathogenic micro-organisms and some macro-organisms such as worms and lice.

Medical science describes diseases by the symptoms they produce in the host. These symptoms are the signs you display when ill. An infection of the lungs that brings about severe breathing difficulties is commonly called pneumonia. Treatment requires correct diagnoses of the cause. There are something like 26 different pathogens for infectious pneumonia covering all four major groups. (Yes, even a worm!)

There are 48 species of fungi that causes the disease we call "tinea". The treatment requires identification of the causative species.

#### Naming organisms

Scientific names are necessary because they are the agreed names settled by an international jury. This avoids confusion that can often arise with local names. People treating the disorders need to be make sure they are communicating about the same organism.

Some common names are used for example; of the staphylococcal group of bacteria the most common and dangerous is the *Staphylococcus aureus* which literally means "golden round balls growing in little clumps". All health workers call it "golden Staph" and often abbreviate to *S. aureus*.

Note that the scientific name is highlighted or put in italics but the common name is kept in ordinary script.

## **TYPES OF PATHOGENS**

### **BACTERIA**

Bacteria are a heterogeneous group of unicellular prokaryotic organisms. Prokaryotic refers to their primitive cellular organisation in that they lack a defined nucleus and nuclear membrane, they have a single chromosome and have no mitochondrial organelles. They are however, numerous and prolific. Human bodies are only one of the many environments that bacteria exist.

Most bacteria are non-pathogenic to humans and in fact are useful to us in their ability to decompose and ferment. The few species that are pathogenic are of serious concern in our daily lives and in the clinic.

#### **Structure**

They are microscopic and enormous clusters of individual cells form colonies. Colonies have distinct shapes, colour, and food requirements which aid in their identification of a particular species.

Individual species vary in:

Cell shape –

- Coccus (round)
- Bacillus (rod)
- Spirillum (spiral)
- Vibrios (blob)

Motility –

- Presence/absence of flagella
- Number and position of flagella

Adhesion structures

Cell Wall – structure and composition

Capsule surrounding the cell wall

Spore formation

#### **Conditions for growth**

Bacteria occupy a wide range of habitats. The environmental conditions which make influence their growth include:

1. period of time
2. nutrients
3. moisture
4. temperature
5. pH
6. availability or lack of oxygen.

#### **Activity:**

Calculate the number of bacterial cells that could develop in 24 hours if the generation time is 10 minutes and the conditions are ideal for that particular bacteria.

In the massage clinic, bacteria can be transmitted in numerous ways:

- On contaminated objects
- From infected persons
- Droplet spray and airbourne particles

#### **Killing Bacteria**

Living bacteria is reasonable easy to kill with heat treatment and the use of disinfectants. In order for this to work, organisms must be exposed to the treatment for the correct length of time. Most disinfectants stop bacteria reproducing but some chemicals are “bacteriocidal” – it kills them. Scrubbing and cleaning must always precede exposure to heat or chemicals.

The design of the clinic room is important because horizontal surfaces become more quickly contaminated than vertical surfaces. Some bacteria can cling to the oily skin scales that constantly flake off the body and blow around the room wherever people are.

Bacteria can ooze and be squeezed through apparently clean tissues, toilet paper and towels. Clean laundry is essential for each client.

We make assumptions about the hygiene habits of our clients. Do they always clean their hands satisfactorily after going to the toilet?

## BACTERIAL DISEASES OF THE SKIN

<i>DISEASE</i>	<i>CAUSATIVE AGENT</i>	<i>CHARACTERISTICS</i>
Impetigo	<i>Staphylococcus aureus</i> ; <i>Streptococcus pyogenes</i> (occasionally)	Superficial skin infection characterised by isolated pustules (round elevations on the skin containing pus) that become encrusted.
Erysipelas	<i>Streptococcus pyogenes</i>	Reddish patches on skin caused by toxins; often with high fever. Usually preceded elsewhere in the body by a streptococcal infection (eg "strep" sore throat).
<i>Pseudomonas</i> dermatitis	<i>Pseudomonas aeruginosa</i>	Superficial rash (self-limiting) often associated with pools and saunas.
Infected burns	<i>Pseudomonas aeruginosa</i>	Blue-green pussy infection commonly of second and third degree burns
Acne	<i>Propionibacterium acnes</i>	Inflammatory lesions originating with accumulations of sebum that rupture a hair follicle.
	<i>Corynebacterium spp.</i>	Pitting on sole of foot, "smelly sock" odour; Underarm region, strong body odour.
Folliculitis (pimples), sty	Various bacteria	Infection of the hair follicle; (infection of eyelash follicle - sty)
Furuncle (boil)	<i>Staphylococcus aureus</i>	Localised region of pus (abscess) surrounded by inflamed tissue.

Normal Bacteria of the Skin



The skin is a highly variable environment, but it is generally fairly hostile to microbial growth due to dryness, acidic pH and many antibiotic substances that are secreted by the glands.

Bacteria on the skins' surface is associated with the oil and sweat glands (*Propionibacterium acnes*) as well as dead skin cells.

Most bacteria found on the skin are *Staphylococcus*. Under the microscope they appear as spherical clusters resembling bunches of grapes. There are nineteen known species of *Staphylococcus* but bacteriological culture of the nose and skin of normal humans produces only two different coloured colony types:

*Staphylococcus aureus* (yellow) and *Staphylococcus epidermidis* (white).

*S.epidermidis* lives on the skin and most strains are non-pathogenic.

*S. aureus* usually lives in the nasal passages but may also be found on other parts of the body. *S. aureus* should always be considered a potential pathogen because it causes a variety of pus-forming infections and endotoxins in humans such as, boils (furnuncles), styles and impetigo. More serious infections can occur such as pneumonia, mastitis, meningitis and urinary tract infections.

Bacteria and other body regions

Nose and Sinuses:

*Staphylococcus aureus*, *S. epidermidis*

Mouth:

*Streptococcus mutans*

Large Intestine and Colon:

Over 300 species of bacteria can be found here. They are important in fermenting our food. The population of bacteria here doubles twice a day and 30% of our faeces contain the remains of theses micro-organisms.

## TYPES OF PATHOGENS

### FUNGI

Of the currently 700,000 known types of fungi, only over 100 are known to be pathogenic to humans. The study of fungi is called MYCOLOGY. Fungal infections are rarely life-threatening and as such tend to be regarded as annoying and persistent. Their treatment is often difficult especially in the case of superficial skin infections (topical) because elimination requires regular and long term application.

Bacteria and fungi have opposing requirements especially in terms of acid and alkaline habitats. One thrives where the other struggles.

All fungi are eukaryote organisms and require food in order to grow and replicate. They all produce digestive enzymes which leak out of the cells and dissolve the surrounding material which is then absorbed and utilised. All fungi are aerobic.

Types of Fungi

Two basic types:

1. Unicellular (the yeasts)

*Candida spp.* are common components in normal body flora. The majority is caused by one species of *Candida* and accounts for around 98% of adult female fungal infections. The other 2% are caused by other species and often require specific anti-fungal drugs. By far the most common culprit for therapists is *C. albicans*. It can infect through cracks and breaks in the skin and attacks finger nails under the lateral nail fold. The transfer occurs via the "oral-faecal" route.

2. Multicellular (the moulds and fleshy fungi eg mushrooms, toadstools etc)

Most fungi that infect the skin are called: DEMATOPHYTES and the diseases are called : DERMATOMYCOSES (common name "tinea").

There are 48 species of fungi that can cause tineal diseases. They all produce keratases (keratin dissolving enzymes). They all produce spores that may be left embedded in skin and clothing.

Question:

What organs of the Integumentary system contain the protein keratin? What is the function of keratin?

Spores of Fungi

Fungi spores are designed to withstand adverse environmental conditions. They have resistant outer coatings and reproduce sexually in huge numbers from a mother cell.

Fungi spores are susceptible to heat but any treatment must be consistent over a period of time. Any lapse means you are back at the beginning and you start again as if the previous treatment never occurred.

## FUNGAL DISEASES OF THE SKIN

<i>DISEASE</i>	<i>CAUSATIVE AGENT</i>	<i>CHARACTERISTICS</i>
Tinea	<i>Microsporum spp.</i> , <i>Trichophyton spp.</i> , <i>Epidermophyton spp.</i>	Group of Dermatomycoses (fungi of skin and hair). Spreading red rash, loss of hair.
Candidiasis (Thrush)	<i>Candida albicans</i> and other <i>Candida spp.</i>	Infection of mucous membranes and moist skin areas. Causes persistent redness / ulceration and itchiness.
Pityriasis	<i>Pityrosporum ovale</i> , <i>P. orbicularae</i>	Mottling of skin

## **TYPES OF PATHOGENS**

### **VIRUSES**

Viruses are unusual organisms. They have a highly specialized lifestyle and present the highest achievement in parasitic life.

Viruses do not have a cytoplasm, cell membrane or organelles.

They do not process any normal life processes such as respiration, growth, movement, feeding or excretion.

Question: What do they have that is "life"?

Answer: RNA or DNA

They "reproduce" but they rely on another living organism to act as a host and supply the mechanics of reproduction for them. They can synthesise specific chemicals and structures for transferring their RNA/DNA into host cells.

#### **Structure**

Viruses consist of a loop of genes in RNA/DNA form. This is surrounded by a protein coat that varies according to the strain of virus or the virus mutates or changes with replication with its host.

#### **Some Common Virus**

Papovirus	warts
Herpesvirus	Cold sores
Picornavirus	Hep A, Polio, head colds
Togavirus	Rubella, Hep C, Dengue Fever
Orthomyxovirus	Influenza, A, B & C
Paramyxovirus	Mumps, Measles
Retrovirus	HIV I, II, IV
Hepadnavirus	Hep B
Rotavirus	Gastroenteritis

#### **Treatment**

Not many drugs are virucidal. Antibiotics are a waste of time. Our best chance is to allow our body's immune system to work and keep healthy. We can however immunize ourselves with vaccination.

Question:

Why are antibiotics not effective for treatment of virus?

#### **In the Clinic**

As viruses can easily be transmitted by droplet spray and body fluids it is important that protective measures are implemented. Many people are carriers of viruses and don't know it. Protection is important for your clients, other staff members and of course yourself and family. Effective hand washing and drying is important and in some industries masks are used to protect from droplet spray.

Note: a sick/sneezing, dribbling client or practitioner is a danger in any clinic and should be sent home.

## **TYPES OF PATHOGENS**

### **ANIMAL PARASITES**

A small but important collection of animal organisms live on and in the body. They come from groups such as worms, insects, mites (arachnids) and protozoans. They vary in size from single celled microscopic to the macroscopic.

If they live inside the body they are called ENDOPARASITES.

If they live outside of the body they are ECTOPARASITES.

Many have complex lifestyles and involve more than one host in one lifetime. They often use VECTORS to aid their transport from one host to another. These vectors are commonly insects that bite or suck blood fluids such as blood. Others rely on you swallowing the eggs of the parasite or the parasite may burrow into your skin.

#### **Common Parasites**

Protozoans include the group involved in dysentery and intestinal infections such as *Giardia lamblia* or *Entamoeba histolytica*. *E. histolytica* is perhaps the one to most careful of in the salon because it results from an infected person having poor toilet habits and poor hand washing and drying habits. This amoeba can be transferred via a cup and a kiss!

Many worm parasites are carried by animals. Excluding animals is easy and is required by law. (Exceptions being “seeing eye” dogs.) Tapeworms and Roundworms enter the body when you swallow the eggs. Clients may leave the eggs on the towels after massage treatment. Controlling the spread of worms is relatively easy. Again, exclude dogs and cats from the premises. Remove towels after each client.

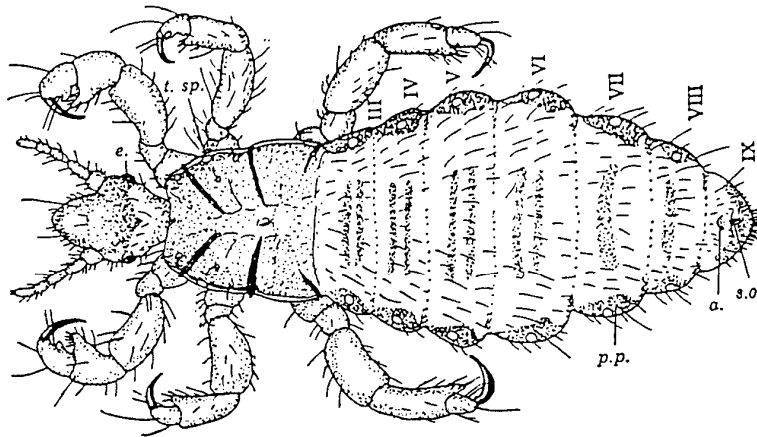
Two types of Ectoparasites occur in Australia. Head lice: – *Pediculus humanus capitis*- and Pubic lice: – *Phthirus pubis*.

Head lice are very common in schools. These wingless insects crawl around head hair and lay eggs glued to a base of hair shafts. They bite and suck for blood. Irritation can lead to secondary infections. Lice prefer clean, fine, short hair. Treatment means using a special insecticidal shampoo and cleaning all bed linen etc and towels.

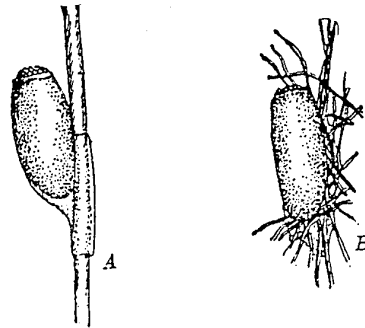
Pubic lice are bigger and stronger and prefer pubic hair but will go to eyebrows, beards and eyelashes. They move slowly so need quite a bit of contact time to move from person to person. The spread of pubic lice in clinic would suggest recreational activities in working time! Treatment is again with insecticide based lotions.

The Itch mite – *Sarcoptes scabiei* is a tiny mite that burrows into the skin. The itchiness they cause is due to the skin’s sensitivity to the mite. Females dig into the epidermis of the skin and lays eggs. When about 50 are laid she dies and when the eggs hatch the larvae crawl to mate and dig again. There is a new generation every 3 weeks. Treatment is with paint-on miticides.

Washing of towels and linen may kill scabies but the water temperature must be over 65°C degrees which is hotter than general domestic tap water (55°C). In the massage clinic they can be transferred from client to client via towels, skin contact and other linens. Mattresses made of fabric material can be carriers. Massage tables should always be covered in a vinyl or similar material for easy cleaning, disinfecting and decreasing the likelihood of contamination.



*Pediculus humanus*, body louse,  $\times 40$ ; a., anus; e., eye; p.p., pleural plate; s.o., sex opening; t.sp., thoracic spiracle; III-IX, abdominal segments.



A, egg of head louse attached to a hair; B, egg of body louse attached to fibers of clothing.  $\times 25$ .

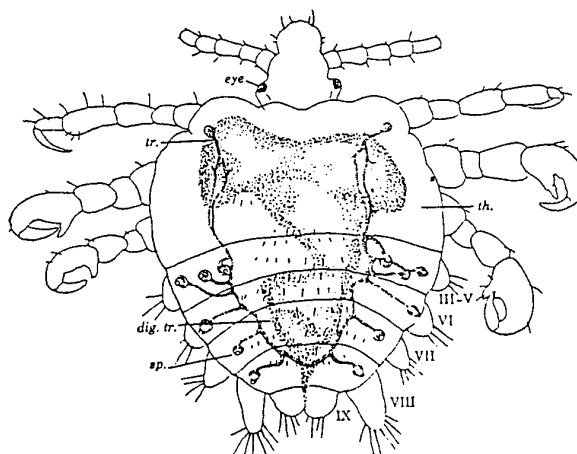


Fig. 190. *Phthirus pubis*, ♀,  $\times 35$ ; dig.tr., digestive tract; sp., spiracle; th., thorax; tr., trachea; III-IX, abdominal segments.

## MACROSCOPIC PARASITES OF SIGNIFICANCE IN THE SALON

### ECTOPARASITES:

<i>DISEASE</i>	<i>CAUSATIVE AGENT</i>	<i>CHARACTERISTICS</i>
Head Lice	Head louse ( <i>Pediculus humanus capitis</i> )	Initially, small red spots at site of bite; followed by itchiness and diffuse redness indicating
Pubic Lice	Pubic or crab louse ( <i>Phthirus pubis</i> )	established infestation. Eggs (nits) adhere to base of hairs.
Scabies	Itch mite ( <i>Sarcoptes scabiei</i> )	Typically occurs on hands, wrists, elbows, feet, genitals, buttocks, breasts and armpits. Itchiness develops approximately one month after initial infestation. Scratching may result in a secondary staphylococcal infection followed by eczema.

### ENDOPARASITES:

Enterobiasis (Threadworm or Pinworm)	Threadworm ( <i>Enterobius vermicularis</i> )	Restlessness and irritability due to itchiness, particularly at night. This is due to the migration of female worms to the anal area at night to lay their eggs. The sticky eggs lodge under finger nails when the area is scratched. Transmission is oral.
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## BLOOD BOURNE DISEASES

It is unusual for a massage therapist to have to deal with blood or body fluids of a client. If however there was an accident in the clinic or a client had a wound that was weeping or got bumped, awareness of what to do is essential.

*It is important to treat all blood and body fluids as potentially infectious.*

### Cleaning up

Disposable gloves should be worn and care should be taken so there is no splashing of fluids onto mucous membranes such as eyes and mouth.

1. Isolate the area
2. Wear gloves
3. Apply absorbent paper to soak up substance and discard
4. Cover area with bleach for 10 minutes
5. Wipe away bleach
6. Wipe again with a disposable cloth with warm water and detergent
7. Dry area
8. Dispose of gloves and all paper towels in a plastic bag and place in a bin.
9. Wash hands and forearms thoroughly with water.

If there is an exposure to blood through the skin:

- Immediately flush area with copious amounts of running water, then wash with soap and warm water.
- If eyes are contaminated, rinse eyes with lots of tap water or saline.
- If blood gets into the mouth, spit, then repeatedly rinse and spit with water.

All incidents should be reported to a First aid officer, OH&S Officer and Management to ensure proper follow up. An accident report form should be completed including:

Time and date of accident

How the incident occurred

Name of the individual who is the source of blood or body fluid (if known).

The person involved should seek medical advice. The OHS officer should review the situation for further risks.

For more information on HIV/AIDS, Hep B and Hep C, description, incubation periods, symptoms, infectious periods etc See: Victorian Government Department of Human Services, June 2000, *Sure Protection Against Infection*, Published by Work Health Unit, Resources Division and Public Health Division.

If a client removes a dressing from a wound, offer them a tissue and ask *them* to wrap it and place it in a waste bin. You could offer them a clean, sterile dressing to replace the old.



## DISEASES TRANSMITTED VIA BLOOD

<i>DISEASE</i>	<i>CAUSATIVE AGENT</i>	<i>CHARACTERISTICS</i>
Hepatitis	Hepatitis B virus (HBV) is the cause of Serum Hepatitis; also C & D, (the latter only if infected with HBV)	Malaise, jaundice, chronic liver disease, commonly severe liver damage, high mortality rate with D.
Acquired Immuno-deficiency Syndrome (AIDS)	Human immunodeficiency virus (HIV)	HIV destroys the T4 lymphocytes of the immune system leaving the body vulnerable to a large number of opportunistic infections as well as the cancer Kaposi's sarcoma. The majority of these diseases are not found in persons with an intact immune system.

## **MAINTAIN PERSONAL HYGIENE**

### **Hand Washing**

Thorough hand washing is the best way to interrupt infection transmission. Most micro-organisms can be removed with soap and water. Hand washing should be practised:

- After each client contact
- Before preparing food and before eating
- After using the toilet
- After smoking
- After handling a nasal tissue
- After any activity or action that involves the therapists hands touching her/his nose, mouth or lips.

Thorough hand washing means:

1. Remove all rings and bracelets
2. Wet hands and forearms with warm water
3. Use soap (liquid soap in a pump pack) and warm running water (a minimum 15 second wash)
4. Rub hands vigorously paying particular attention to back of hands, between fingers, under fingernails and forearms up to elbow
5. Rinse well
6. If taps are hand operated, turn off taps using paper towel
7. Dry hands with a single use paper towel or hot air dryer.

Any break in the skin that lowers the skins integrity should be covered with a waterproof dressing or a glove can be worn.

### **Clothing**

Clothing can become heavily contaminated with micro-organisms. A fresh, clean uniform should be worn every day. Ideally shoes made of smooth leather with no perforations.

### **Jewellery**

The wearing of rings, bracelets, and earrings should be kept to a minimum. It has been shown that even after hand washing, a finger with a ring always carries more micro-organisms than a finger without a ring.

### **Nails and Hair**

Fingernails should be kept short both for practical purposes but also for hygiene. Hair should be kept clean, be tied up or worn short. Hair carries many diseases including staphylococci. In one hospital study, 20% of the head of staff was contaminated with staphylococci.

### **Nose blowing**

Disposable tissues are preferential to handkerchiefs. Hand washing is essential after nose blowing.

### **Smoking, Animals and Eating**

Smoking not only looks unprofessional, but there is a risk of transferring bacteria from mouth to fingers then into the clinic.

Animals should not be allowed into a clinic at any time except for dogs that assist blind clients.

There should be designated areas for eating and food preparation. These should be separate from laundry/cleaning areas and away from clinic rooms.

### **Dispensing Massage oils**

To avoid cross contamination, massage oils. Lotions or creams should always be dispensed using pump pack containers or applicators. Try not to touch the dispensing nozzle when dispensing the creams. Hands should have been washed correctly before dispensing the lotion. Applicators should be single use and not re-dipped into container.

References:

- Victorian Government Department of Human Services, June 2000, *Sure Protection Against Infection*, Published by Work Health Unit, Resources Division and Public Health Division.
- Standards of Practice for Beauty Treatment and Electrolysis
- Standards of Practice for Hairdressers

## **GENERAL CLEANING**

### Why do we clean?

Basically we clean to remove unwanted foreign material, and to keep things as free of this material and for as long as possible. There are other reasons:

- Aesthetic: To make the clinic look more attractive
- Hygiene: Controls the spread of harmful micro-organisms
- Care: Items well looked after last longer
- Safety: to remove rubbish which may be a hazard.

The more cleaning, the higher standard of cleanliness.

### Layout of clinic

Massage treatment areas should be completely separate from cleaning areas, toilets and food preparation areas. Fittings, furniture and shelving etc should be made of impervious materials capable of being kept clean and in good repair. There should be good lighting throughout the premises!!

Comment:

With a view to infection control, floors should be seamless, no cracks and be suitable for cleaning with water and be resistant to detergents and disinfectants. Vacuum cleaners are not recommended because of the air turbulence they create. Dry methods of cleaning are best for dust.

Comment on:

Carpeted massage treatment rooms?

Curtains?

Any contaminated wastes such as paper towels and fabric towels should have receptacles for their storage before removal from the treatment room.

Ideally, hand washing basins should be in the treatment room but are only required to be present on the premises. These sinks should have hot and cold tapwater mixers and should be kept exclusively for washing of hands only. Soap dispensers are recommended and clean single, disposable towels or air dryer.

#### General cleaning

- Work areas should be kept clean at all times.
- Routine cleaning with hot or warm water and detergent is sufficient
- Floors should be cleaned using detergent and hot water with a mop. Bathrooms should be cleaned as above including toilets, wash tap handles, toilet door handles.
- Treatment beds should have a clean covering for each client whenever the skin touches the fabric.

#### Comment:

- Surfaces such as bench tops and table tops, desks should be cleaned with warm water and detergent.
- Mops and cleaning cloths should be rinsed and thoroughly dried after use because moisture may provide conditions for germs to grow. Sunlight is excellent.
- Use the correct equipment. Don't share cloths for different areas eg toilet and hand washing basin.

#### Disinfectants

Disinfectants are only really required where contamination with blood or body fluids has occurred. Disinfectants should never replace good cleaning.

#### Cleaning Agents

- Water is the simplest cleaning agent. It helps loosen and dissolve dirt.
- Soap is made from fats such as palm oil, fish oil or animal fat with caustic soda (NaOH). When mixed with water it emulsifies grease and oil and thus cleans. It can leave a scum on skin and basins.
- Synthetic detergents are made from a combination of chemicals usually petroleum in nature. The active ingredient is called the surface active agent or surfactant. This loosens dirt, dust and micro-organisms. The detergent also helps prevent this grime from falling back onto the surface and therefore no scum.
- Solvents such as turpentine or methylated spirits can be used to remove heavy grease stains or wax.

#### Laundry

Wash linen and towels and uniform in hot water not less than 70 degrees C, with soap and detergent. Drying can be in the sun and wind or in a commercial clothes dryer.

#### Question

Give your own examples of how laundry is dealt with in a Massage business.

## WASTE DISPOSAL

Review this list of items of waste for disposal/removal in the massage clinic:

### Massage Table covers

- Disposable
- Fabric

### Towels

- Foot
- Face
- Body

### Paper

- Hand washing
- Face protector
- Writing

### Others????

- Gowns
- Gloves
- Empty bottles of creams, oils

### General Rules for Waste Disposal:

- Any material that comes in direct contact with the client should be renewed between clients. All materials should be clean (first use).
- All paper and noninfectious waste should be placed into a bin as soon as practicable after treating a client and removed from the premises at least daily.
- When sorting linen, gloves should be used and linen placed in a suitable receptacle e.g.: clothes basket.
- Any blood should be put in a special bin labelled “infectious wastes” and disposed of according to EPA requirements. This includes sanitary napkins in the women’s toilet. There is a large selection of companies who specialise in the dispose of this material. <http://www.epa.vic.gov.au>
- Removal of body fluids including blood from linen:

Gloves should be worn, remove solid waste with paper towel, place in household bleach for 30 minutes, launder separately with hot water and detergent. Where bleach will damage fabric, rinse in cold water first, then launder in hot water with detergent. Dryers and ironing will assist decontamination. For blood, rinse first, then full hot cycle with detergent.

## **THE NEED FOR SAFETY**

The human and economic costs of injuries and accidents at work are enormous. In Australia accidents in the workplace cost many millions of dollars a year, both as direct costs and indirect costs.

Question:

Explain what is meant by the terms direct costs and indirect costs.

The OH&S Act, 1985 has been written into law to protect the safety rights of workers while at work by establishing rules and regulations that employers must follow or face prosecution. Prosecution can be a high monetary fine in a Civil Court. In some cases the matter may go before the Criminal court and then a jail term may be applied.

The Codes of Practice that give OH&S information most closely related to Massage Therapists are:

- "Workplaces", no.3, 1988
- "First Aid in the Workplace", no.18, 1995
- "Manual Handling", no.25, 2000

The "Workplaces", Code of Practice outlines the minimum standards for facilities and amenities for workplaces that ensure safe and healthy working conditions. Available at [www.workcover.vic.gov.au](http://www.workcover.vic.gov.au) Look for "Codes of Practice".

This code covers amenities such as:

- Change rooms: must be supplied if an employee needs to change clothes before or after work. Must have useable locker space.
- Hand washing facilities: disposable towels and soap must be supplied. There should be one water tap per 15 employees.
- Storage: all employees should have a place for safe storage of personal items.
- Drinking water: should be clean, cool and palatable. Separate from hand washing. One drink outlet point per 40 employees. Not greater than 30 metres away.
- Heating/cooling: Air should counteract excessive heat and 15degrees Celsius be maintained.
- Task lighting: should be able to perform task safely and without straining to see.
- Aisle ways: Exit doors should be marked for emergency and aisle should be minimum 600mm wide.
- Cleanliness: dirt, refuse and waste be removed daily. Floors cleaned daily.
- Seating: ergonomically sound work position with suitable support.
- Workstation space: clear space for working excluding desk, benches etc. Sufficient space should be allocated.
- Workplace construction: room sizes, heights, lights, ventilation all explained. If more than 6 employees and number of persons of the minority sex is less than 2, then separate toilets should be supplied (Victorian Building Regulations). Fewer than 6 employees a unisex toilet may be provided. Majority of employees are 1 sex then toilet can be shared.

Some of the Professional Associations for Massage Therapists also offer broad advice about Occupational Health and Safety issues:

“Premises: Both client and practitioner should have access to a clean toilet and hand basin. All linen should be appropriately stored to prevent possible soiling. Professional premises will be kept in a good state of general repair, comfortably warm, well lit and ventilated and maintained to a high standard of cleanliness.”

From: National Council of Allied Health Practitioners – Code of Practice.

While we all know that employers have a legal responsibility to keep workplaces safe, employees have an important role in preventing accidents and injuries by reducing the risks through the use of safe work practises and knowing how to respond in emergencies.

#### Policy Documents

A major part of being safe at work means that employees learn and use the systems (policies and procedures) that exist in a business to ensure their health and safety and that of their clients. Depending on the size of a massage business, policies may or may not exist in the following areas of OH&S:

- Emergency Services contact details – lists placed near telephone
- Emergencies and Evacuation (fire/accident/illness) – what to do in times of..
- First Aid – location of kit and person in charge.
- Personal safety – eg late night locking up and lighting
- Infection Control – hand washing, cleaning schedule etc
- Wastes and spillage – schedule for disposal of wastes
- Manual Handling – training, policy documents

No matter the size of a business and whether or not formal policies are written, the responsibility for OH&S still remains with the employer. In prosecuting for breaches of the OH&S Act, ignorance or avoiding responsibilities is not a legitimate excuse. All employees should be given some introduction to the OH&S issues in the workplace.

Question:

From your experience, how are OH&S issues dealt with in a small business?

Below is a sample policy from an allied health clinic that employs several Massage Therapists along with other Complimentary Therapists. This business employs 20 staff, most being part-time and some contracting. This business has an office manager who works 3 days per week.

#### Sample Policy

##### **Karma Health and Safety Policy**

Our aim is to provide a safe and healthy environment for all our employees and customers. We will make every reasonable effort to ensure that:

- Accidents are prevented
- Hazards are removed or controlled
- Employees and clients are protected from injuries
- Health is preserved and promoted

We will give priority to safe and healthy working conditions in all aspects of the services we offer. Health and safety is a shared responsibility and we will provide opportunities for employees to influence and provide information to improve their health and safety at work.

#### OH&S Officers and Committees

Most large businesses have an Occupational Health and Safety committee or Officer. This is usually made up of a staff elected committee. Their job may include:

- Ensuring employees participate in determining safety policy and procedures
- Ensure health and safety issues are dealt with effectively and systematically
- Help ensure everyone accepts his or her responsibility to contribute to a safe work environment.

The committee members would be expected to do some training in the area of OH&S.

**Note:** As a part of your Assessment in this unit you will be designing and then conducting a safety audit which could be used by an OH&S officer.

#### Causes of Accidents

Many accidents can be anticipated and prevented by learning how to look for the hazards that cause them.

##### Activity:

Brainstorm a list of possible causes of injury that could occur in a massage clinic.

#### Identify Causes of Injury and Causes

#### Responding to Incidents and Emergencies

Even after taking precautions to reduce risks in the workplace, accidents can and do happen. Knowing what to do when an accident or emergency occurs is necessary for a safe work environment.



Taking some action

Activity:

Think of 5 situations that could happen in a massage therapy business and complete the table below.

SITUATION	WHAT SHOULD YOU DO? WHO SHOULD YOU TELL?
E.g.: Client slips on step and gashes head on bench corner.	

#### Emergency Procedures

Businesses will vary a great deal in the amount of effort they put into planning emergency contingencies. Under the Code of Practice for OH&S, it is recommended that all staff be inducted into the work place and have the emergency procedures explained to them. Induction may mean being shown the layout of the building, location facilities, explaining the use of equipment and introduction to other staff.

Question:

Discuss how a staff induction could enhance your safety if you were a new employee at a massage business. Give examples.

Some of the Emergency procedures that might be included in an induction:

- Evacuation, e.g.: fire
- Accident e.g.: location of first aid kit
- Personal safety e.g.: aggressive client, locking up at night

In many businesses the evacuation procedures are sign posted throughout the building.

While most small businesses may not have an official Emergency Procedure, it is acceptable to have an unofficial policy that deals with what to do in emergencies. All staff working in a business should be informed and have the procedures discussed with them.

Read the sample Emergency procedures attached overleaf and shown to you by your teacher.

Activity:

Brainstorm with a partner what you would do in the following emergency situations.

What to do if...

IF THIS HAPPENS...	DO THIS.....
Aggressive client that wont leave the premises	
Client falls on the way to the toilet	
Therapist hurts back trying to lift drum of massage oil to high shelf	
Fire starts in back of clinic.	

Question:

Have you or anyone else in your class ever experienced an emergency while at work? Please tell.

#### Reporting Incidents

Reporting an incident is a part of the legal requirement under the OH&S Act. This identification of hazards means that action can be taken to remove the hazard and make the workplace safer. It also means that future injuries can be avoided. The emphasis on reporting is to reduce the risks and prevent accidents before they cause a problem.

Reporting near misses and possible risks before they lead to a problem is also part of the OH&S philosophy. This includes all incidents when something has **almost** caused an injury or accident.

#### Occupational Health and Safety Audits

Preventing accidents is what safety auditing is about. For your assessment for this unit you will be writing your own safety audit and then using it to assess a Massage clinic. See your Assessment 7 sheet.

Safety audits deal with all aspects of safety in the workplace incorporating all areas of OH&S including Infection Control. They involve critically assessing the health and safety aspects of the workplace.

The frequency of safety audits varies greatly from business to business but is the responsibility of the OH&S officer /committee. In small businesses where there is no designated OH&S person, safety audits can be done anytime!

See the sample Safety audits displayed.

### Work Overload

One area of OH&S that is often neglected is the area of work overload, breaks from work and the stress associated with this. Dealing directly with emergency and safety situations is vital but sometimes more subtle areas of work safety are overlooked. Preventing work overload is an aspect of work that can affect the safety of the employee and the clients they deal with. Sources of stress should be identified and dealt with.

#### Questions:

Making sure staff have nominated work breaks can be difficult in the massage industry.

1. Identify the barriers that may exist in a clinic that makes work breaks irregular or non-existent.
  
2. What do think is the appropriate spacing between clients or break periods? Discuss

### Manual Handling

Over 60% of injuries at work result from not properly handling items in a workplace. It is the employer's responsibility to make sure employees are trained in correct manual handling and the employees responsibility to apply the techniques. In your diploma course, you will have been trained in the correct handling techniques during a massage.

#### Activity:

1. Give an example of some of the manual handling techniques you could be required to do when working as a Massage Therapist in a workplace.
  
2. Discuss the correct manual handling for each task you have identified. Demonstrate if you like.
  - a) Lifting. Example
  
  - b) Lowering. Example
  
  - c) Pushing. Example
  
  - d) Pulling. Example
  
  - e) Holding or carrying a heavy item. Example

Some Book Resources:

Commonwealth Department of Health and Aged Care, Australian Immunisation Handbook, 8<sup>th</sup> Edition.

Hall, Robert, 1996, *Immunisation: Myths and Realities: Responding to Arguments Against Immunisation*, Department of Health and Human Services, Australian Government Printer, Canberra

Salvo, Susan, 2003, *Massage Therapy- Principles and Practice*, Saunders, USA.

Standards of Practice for Beauty Treatment and Electrolysis

Standards of Practice for Hairdressers

Victorian Government Department of Human Services, 2000, *Sure Protection Against Infection*, Published by Work Health Unit, Resources Division and Public Health Division.

Websites:

<http://workcover.vic.gov.au>

<http://www.dhs.vic.gov.au/phb/standardsofpractice/beauty.htm>

<http://www.dms.vic.gov.au>

<http://www.epa.vic.gov.au>

Audio Resources:

Introducing Pathogens, 1995, 30mins.

CTK 576.165

INT

Battle Scars – an Overview of our Defence Against Disease, 1995

SUN 616.079

BAT

Infection Control in the Workplace, 1999, 11mins.

CTK 614.44

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