Wound Care at a Glance

Second Edition

Ian Peate
Melanie Stephens

with self-test

WILEY Blackwell

Wound Care
at a Glance

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Wound Care at a Glance

Second Edition

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Preface to the second edition

This second edition of *Wound Care at a Glance* has been revised and reviewed in light of the on-going developments in wound care practice. In preparing this new edition, we have listened to readers' feedback, which has encouraged us to provide updates to the chapters in order to reflect changes and advances in the field, and we have added an extended reference list so as to support practice with an evidence base. As wound care management develops, it is also a requirement that nurses and other health care practitioners update their knowledge base as they respond to the needs of the people they offer care and support to. The field of wound care is a dynamic and ever-changing field; keeping up-to-date, and ensuring that care provision is safe, effective and patient centred, are key requirements of any practicing nurse (Nursing and Midwifery Council, 2018).

In order to provide wound care to people across the lifespan, from all socioeconomic backgrounds and in all care specialities and communities, the nurse has to be confident and competent. There is need to understand the anatomy and physiology of the skin, as well as to adopt a holistic and patient-centred approach. This edition again emphasises that wound care has to incorporate patient care. This must involve and engage patients and their families with regards to decisions about their health and care, as this has the potential to enhance individual well-being and care outcomes. When the nurse understands the patient's experiences of the services provided, this can help identify areas of waste and inefficiency, as well how to make improvements to the overall patient experience. When there is a breakdown in skin integrity, this is likely to have a negative impact on the person's health and well-being, as well as the individual's family and society. There will also be implications for the wider health and care economy.

There are often a wide range of professional challenges associated with wound care – from the technological aspects of care to the ethical and sociological questions that should be and are always present when a nurse makes clinical decisions. The provision of high-quality, safe and effective, patient-centred wound care is complex, and success will depend on effective integration of scientific breakthroughs and wound care practices. The provision of wound care and the promotion of wound healing is very much interdisciplinary in nature.

This second edition of *Wound Care at a Glance* retains its easy-to-access approach. This book stays true to the underlying philosophy of the 'At a Glance' series by providing the reader with full-colour illustrations and bite-size information that is easy to digest, as the authors are fully aware that keeping up-to-date with the latest developments in the science of wound care can often be overpowering.

The book has six parts, starting with the history of wound care, the anatomy and physiology, and the normal and abnormal healing processes. The section in the book on wound management in practice emphasises the need for a holistic assessment of skin and describes the various classifications of wounds; in this section, there are chapters dedicated to the ethical and legal aspects of wound care, as well as treatment options and pain management strategies. Dressing selection is a multifaceted process, and the nurse is required to bring together knowledge and understanding of the person as well as the many dressings that are available. Dressing selection and the factors that are required to be taken into consideration when choosing an appropriate wound care product are discussed. There is an emphasis throughout on ensuring that the person's individual needs are addressed. The concluding section of the text takes into account wound care complexities and considers a range of circumstances that the nurse may face.

We were delighted to have been asked to prepare a second edition and have been enthused by the feedback. We are indebted to Wyn Glencross, co-editor of the first edition. Our wish is that this text helps you enhance your practice, knowledge, skills and understanding of wound care.

References

Nursing and Midwifery Council (2018). The Code. Professional standards of practice and behaviour for nurses, midwives and nursing associates. https://www.nmc.org.uk/globalassets/sitedocuments/nmc-publications/nmc-code.pdf. Last accessed September 2019.

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Ian would like to thank his partner Jussi Lahtinen for his continued support and Mrs Frances Cohen for her ongoing assistance. Melanie would like to thank Ian for asking her to contribute to the second edition, and her husband James and children Jacob and Amber for their continued support.

We would like to acknowledge the contribution made by Wyn Glencross to the first edition.

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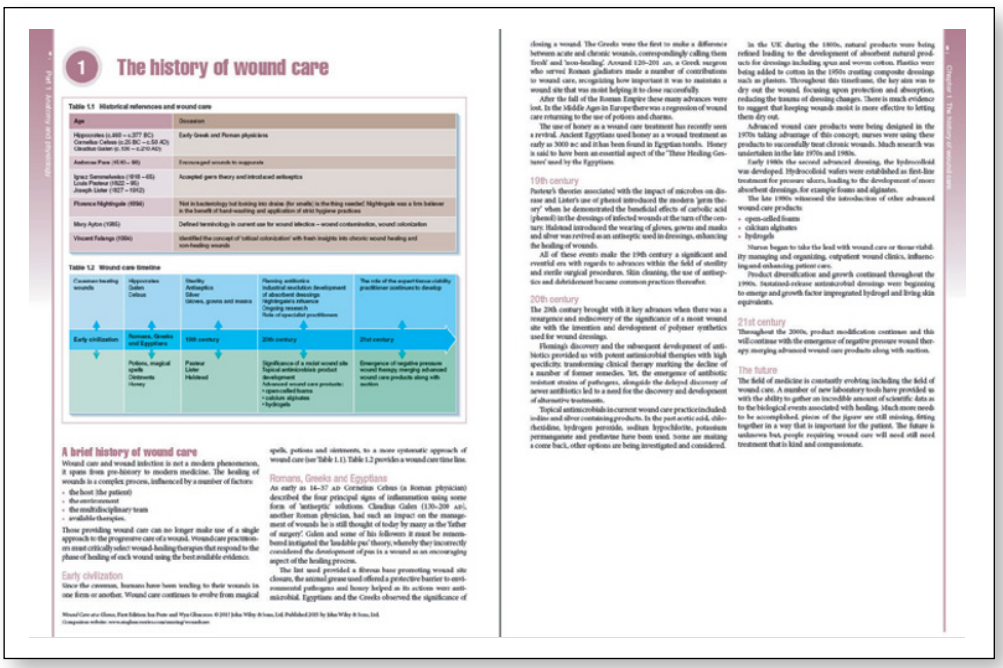

1 The history of wound care

Table 1.1 Historical references and wound care

Age	Occasion
Hippocrates (c.460 – c.377 BC) Cornelius Celsus (c.25 BC – c.50 AD) Claudius Galen (c. 130 – c.210 AD)	Early Greek and Roman physicians
Ambroise Paré (1510 – 90)	Encouraged wounds to suppurate
Ignaz Semmelweiss (1818 – 65) Louis Pasteur (1822 – 95) Joseph Lister (1827 – 1912)	Accepted germ theory and introduced antiseptics
Florence Nightingale (1856)	Not in bacteriology but looking into drains (for smells) is the thing needed' Nightingale was a firm believer in the benefit of hand-washing and application of strict hygiene practices
Mary Ayton (1965)	Defined terminology in current use for wound infection – wound contamination, wound colonization
Vincent Falanga (1994)	Identified the concept of 'critical colonization' with fresh insights into chronic wound healing and non-healing wounds

Table 1.2 Wound care timeline

Cavemen healing wounds	Hippocrates Galen Celsus	Sterility Antiseptics Silver Gloves, gowns and masks	Fleming antibiotics Industrial revolution development of absorbent dressings Nightingale's influence Ongoing research Role of specialist practitioners	The role of the expert tissue viability practitioner continues to develop
Early civilization	Romans, Greeks and Egyptians	19th century	20th century	21st century
	Potions, magical spells Ointments Honey	Pasteur Lister Halstead	Significance of a moist wound site Topical antimicrobials printed development Advanced wound care products: • open-celled foams • calcium alginates • hydrogels	Emergence of negative pressure wound therapy, merging advanced wound care products along with suction

A brief history of wound care

Wound care and wound infection is not a modern phenomenon, it spans from pre-history to modern medicine. The healing of wounds is a complex process, influenced by a number of factors:

- the host (the patient)
- the environment
- the multidisciplinary team
- available therapies.

Those providing wound care can no longer make use of a single approach to the progressive care of a wound. Wound care practitioners must critically select wound-healing therapies that respond to the phase of healing of each wound using the best available evidence.

Early civilization

Since the caveman, humans have been tending to their wounds in one form or another. Wound care continues to evolve from magical spells, potions and ointments, to a more systematic approach of wound care (see Table 1.1). Table 1.2 provides a wound care time line.

Romans, Greeks and Egyptians

As early as 16–37 AD Cornelius Celsus (a Roman physician) described the four principal signs of inflammation using some form of 'antiseptic' solutions. Claudius Galen (130–200 AD), another Roman physician, had such an impact on the management of wounds he is still thought of today by many as the 'father of surgery'. Galen and some of his followers it must be remembered instigated the 'laudable pus' theory, whereby they incorrectly considered the development of pus in a wound as an encouraging aspect of the healing process.

The list used provided a fibrous base promoting wound site closure, the animal grease used offered a protective barrier to environmental pathogens and honey helped as its actions were antimicrobial. Egyptians and the Greeks observed the significance of closing a wound. The Greeks were the first to make a difference between acute and chronic wounds, correspondingly calling them 'fresh' and 'non-healing'. Around 120–201 AD, a Greek surgeon who served Roman gladiators made a number of contributions to wound care, recognizing how important it was to maintain a wound site that was moist helping it to close successfully.

After the fall of the Roman Empire these many advances were lost. In the Middle Ages in Europe there was a regression of wound care returning to the use of potions and charms.

The use of honey as a wound care treatment has recently seen a revival. Ancient Egyptians used honey as a wound treatment as early as 3000 BC and it has been found in Egyptian tombs. Honey is said to have been an essential aspect of the 'Three Healing Gestures' used by the Egyptians.

19th century

Pasteur's theories associated with the impact of microbes on disease and Lister's use of phenol introduced the modern 'germ theory' when he demonstrated the beneficial effects of carbolic acid (phenol) in the dressings of infected wounds at the turn of the century. Halstead introduced the wearing of gloves, gowns and masks and silver was revived as an antiseptic used in dressings, enhancing the healing of wounds.

All of these events make the 19th century a significant and eventful era with regards to advances within the field of sterility and sterile surgical procedures. Skin cleaning, the use of antiseptics and debridement became common practices thereafter.

20th century

The 20th century brought with it key advances when there was a resurgence and rediscovery of the significance of a moist wound site with the invention and development of polymer synthetics used for wound dressings.

Fleming's discovery and the subsequent development of antibiotics provided us with potent antimicrobial therapies with high specificity, transforming clinical therapy marking the decline of a number of former senecides. Yet, the emergence of antibiotic resistant strains of pathogens, alongside the delayed discovery of newer antibiotics led to a need for the discovery and development of alternative treatments.

Topical antimicrobials in current wound care practice included iodine and silver containing products. In the past acetic acid, chlorhexidine, hydrogen peroxide, sodium hypochlorite, potassium permanganate and proflavine have been used. Some are making a come back, other options are being investigated and considered.

In the UK during the 1800s, natural products were being refined leading to the development of absorbent natural products for dressings including spun and woven cotton. Plastics were being added to cotton in the 1950s creating composite dressings such as plasters. Throughout this timeframe, the key aim was to dry out the wound, focusing upon protection and absorption, reducing the trauma of dressing changes. There is much evidence to suggest that keeping wounds moist is more effective to letting them dry out.

Advanced wound care products were being designed in the 1970s taking advantage of this concept; nurses were using these products to successfully treat chronic wounds. Much research was undertaken in the late 1970s and 1980s.

Early 1980s the second advanced dressing, the hydrocolloid was developed. Hydrocolloid wafers were established as first-line treatment for pressure ulcers, leading to the development of more absorbent dressings, for example foams and alginates.

The late 1980s witnessed the introduction of other advanced wound care products:

- open-celled foams
- calcium alginates
- hydrogels

Nurses began to take the lead with wound care or tissue viability managing and organizing outpatient wound clinics, influencing and enhancing patient care.

Product diversification and growth continued throughout the 1990s. Sustained-release antimicrobial dressings were beginning to emerge and growth factor impregnated hydrogel and living skin equivalents.

21st century

Throughout the 2000s, product modification continues and this will continue with the emergence of negative pressure wound therapy merging advanced wound care products along with suction.

The future

The field of medicine is constantly evolving including the field of wound care. A number of new laboratory tools have provided us with the ability to gather an incredible amount of scientific data as to the biological events associated with healing. Much more needs to be accomplished, pieces of the jigsaw are still missing, fitting together in a way that is important for the patient. The future is unknown but, people requiring wound care will need still need treatment that is kind and compassionate.

The website icon indicates that you can find accompanying resources on the book's companion website.

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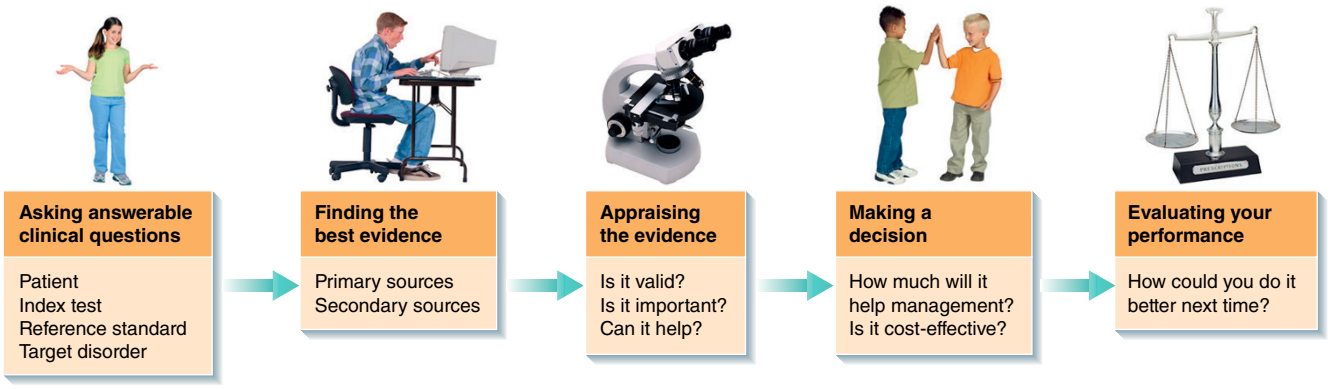
Figure 21.1 Five stages associated with evidence-based practice



Source: Thompson and Van den Bruel 2011, figure on p. x of Introduction. Reproduced with permission of Wiley & Sons, Ltd.

Table 21.1 Hierarchy of evidence

Level	Description of evidence	Strength
I	Systematic review or meta-analysis of all relevant randomized controlled trials (RCTs), or evidence-based clinical practice guidelines based on systematic reviews of RCTs	Strongest
II	Evidence from at least one well-designed RCT	
III	Evidence from well-designed controlled trials without randomization	
IV	Evidence from well-designed case-control and cohort studies	
V	Systematic reviews of descriptive and qualitative studies	
VI	A single descriptive or qualitative study	
VII	The opinion of authorities and/or reports of expert committees	Weakest

Figure 44.1 Incision/cut

Figure 44.2 Laceration

Figure 44.3 Puncture wound

Figure 44.4 Abrasion/friction

Figure 44.5 Contusion/bruise

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Anatomy and physiology

Part 1

Chapters

Visit the companion website at www.ataglanceseries.com/nursing/woundcare to test yourself on these topics.

1 The history of wound care

Table 1.1 Historical references and wound care.

Age	Occasion
Hippocrates (c. 460–c. 377 BC) Cornelius Celsus (c. 25 BC–c. 50 AD) Claudius Galen (c. 130–c. 210 AD)	Early Greek and Roman physicians Wine or vinegar was used to cleanse wounds, and the follow-up treatment included the application of honey, oil and wine
Ambrose Pare (1510–1590)	Encouraged wounds to suppurate
Ignaz Semmelweiss (1818–1865) Louis Pasteur (1822–1895) Joseph Lister (1827–1912)	Accepted the germ theory and the introduction of antiseptics
Florence Nightingale (1894)	'Not in bacteriology, but looking into drains (for smells) is the thing needed'. Nightingale was a firm believer in the benefits of sanitation, hand-washing and application of strict hygiene practices
George D. Winter (1962)	Discovered the importance of moist wound-healing in experimental animals
Mary Ayton (1985)	Defined the terminology that is currently used for wound infection – wound contamination and wound colonisation
Vincent Falanga (1994)	Identified the concept of 'critical colonisation' with fresh insights into chronic wound-healing and non-healing wounds

Table 1.2 Wound care timeline.

Early civilisation	Romans, Greeks and Egyptians	19th century	20th century	21st century
Cave dwellers treating wounds	Hippocrates Galen Celsus	Sterility Antiseptics Silver Gloves, gowns and masks	Fleming antibiotics Industrial Revolution Development of absorbent dressings Nightingale's influence Ongoing research Role of specialist practitioners	The role of the expert tissue viability practitioner continues to grow
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- Available therapies.

Those providing wound care can no longer stick to a single approach in the progressive care of a wound. Wound care practitioners must critically select such wound-healing therapies that can respond to the healing phase of any wound using the best available evidence. For thousands of years, dressing materials have been continually developing so as to provide protection, absorption and act as a base for wound bed preparation. Over the last 30 years, the advances in would care have been more prolific as compared to the previous 2000 years.

Early civilisation

Since the era of cave dwellers, humans have been tending to their wounds in one form or another. Wound care continues to evolve from casting magical spells and applying potions and ointments to a more systematic approach (see Table 1.1). See Table 1.2 for the wound care timeline.

Romans, greeks and egyptians

As early as 14–37 AD, Cornelius Celsus (a Roman physician) described the four principal signs of inflammation using some form of 'antiseptic' solutions. Claudius Galen (130–200 AD), another Roman physician, had such expertise on the management of healing wounds that he is still considered the 'father of surgery' by many. Galen and some of his followers must be remembered for instigating the 'laudable pus' theory, whereby they incorrectly considered the development of pus in a wound as an encouraging aspect of the healing process.

The lint provided a fibrous base promoting the covering of a wound site, the animal grease offered a protective barrier to the environmental pathogens, and the honey helped with its antimicrobial actions. The Egyptians and Greeks observed the significance of covering a wound. The Greeks were the first to identify the difference between acute and chronic wounds, correspondingly calling them 'fresh' and 'non-healing'. Around 120–201 AD, a Greek surgeon, who served the Roman gladiators, made a number of contributions to wound care by successfully covering a moist wound site and recognising its importance.

After the fall of the Roman Empire, many of these advances were lost. In the Middle Ages in Europe, there was a regression in the field of wound care, returning to the use of potions and charms.

The use of honey as a wound care treatment has recently seen a revival. Ancient Egyptians used honey as a wound treatment as early as 3000 BC, and its traces have been found in Egyptian tombs. Honey is said to have been an essential part of the 'Three Healing Gestures' used by the Egyptians.

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Topical antimicrobials in the current wound care practice include iodine- and silver-containing products. In the past, acetic acid, chlorhexidine, hydrogen peroxide, sodium hypochlorite, potassium permanganate and proflavine have been used. Some of these are making a comeback, and other options are being investigated and considered.

During the 1800s in the UK, natural products were being refined, leading to the development of absorbent natural products for dressings, including spun and woven cotton. During the First World War, absorbent dressings were being manufactured. Tulle gras, a paraffin gauze dressing, was developed by Lumière. Plastics were being added to cotton in the 1950s creating composite dressings, such as plasters. Throughout this timeframe, the key aim was to dry out the wound, focusing upon protection and absorption, reducing the trauma of dressing changes. There is much evidence to suggest that keeping wounds moist is more effective to letting them dry out.

Advanced wound care products were being designed in the 1970s taking advantage of this concept; nurses were using these products to successfully treat chronic wounds. Much research was undertaken in the late 1970s and 1980s.

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Product modification continued throughout the 2000s, and this will continue with the emergence of negative pressure wound therapy and merging advanced wound care products along with suction.

The future

The field of medicine is constantly evolving with advancements in wound care techniques. A number of new laboratory tools have provided us with the ability to gather an incredible amount of scientific data related to the biological events associated with healing. Much more needs to be accomplished in this field, as pieces of the jigsaw, fitting together in a way that is important for the patient, are still missing. The future is unknown, but the people requiring wound care will still need a kind of treatment that is kind and compassionate.

2 Anatomy and physiology of the skin

Figure 2.1 The layers of the skin.

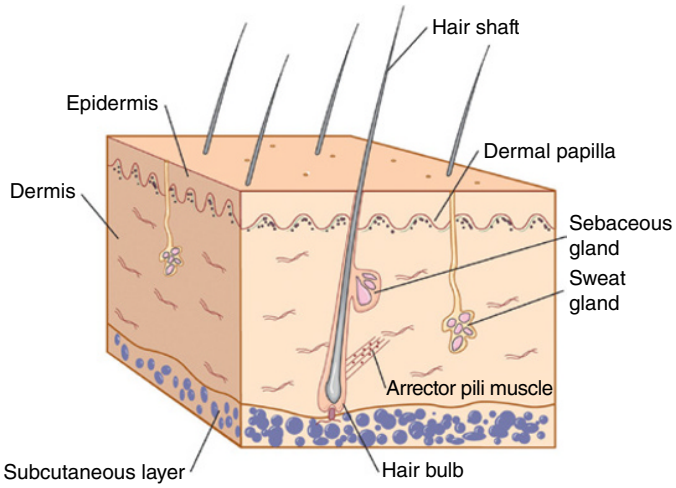


Figure 2.2 The hair.

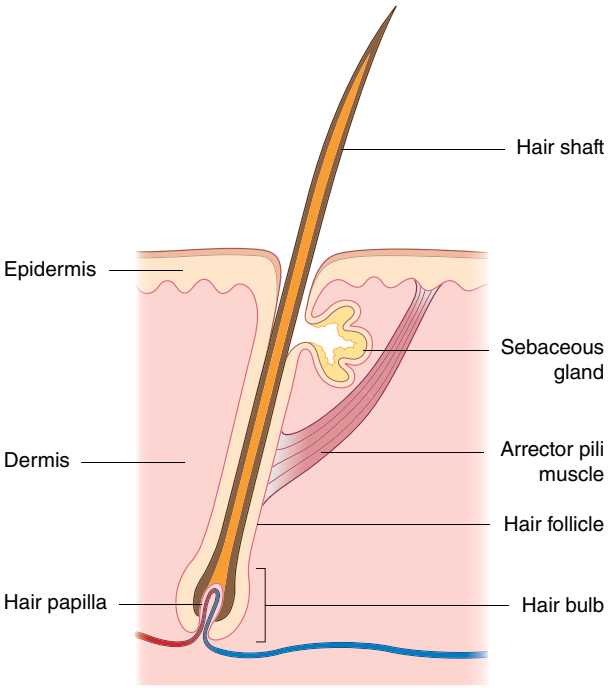


Figure 2.3 The nail.

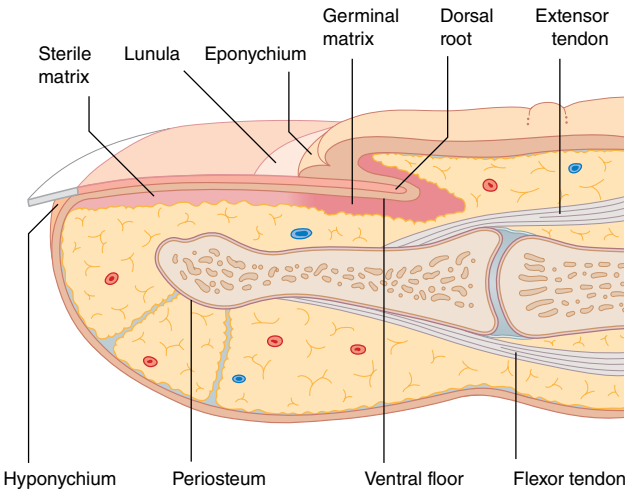
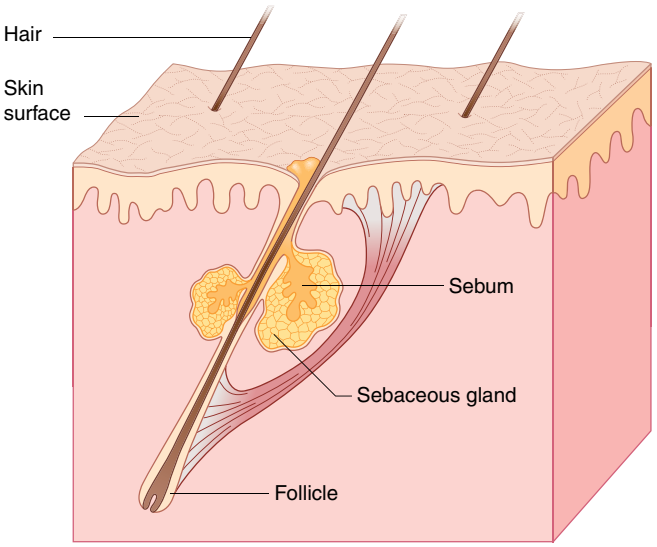


Figure 2.4 Sebaceous gland.



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The skin is the largest organ of the body, consisting of accessory organs such as glands, hair and nails (the appendages). It is a multifunctional organ:

- It protects against biological invasion, physical damage and ultraviolet radiation.
- Nerve endings provide sensation.
- It provides thermoregulation through sweating and the regulation of blood flow.
- It synthesises Vitamin D.
- Sweat excretes salts and small amounts of waste.
- Aesthetics and communication.

The skin has three layers: the epidermis (Figure 2.1), the dermis and the hypodermis. Skin health has a great impact on the overall health of the individual, and it is of profound psychological importance.

Epidermis

This predominantly consists of stratified epithelium; the outer layer continually sheds dead cells and is slightly acidic with pH 4.5–6. The basal layer constantly forms new cells, gradually moving towards the surface and flattening during this process, prior to being shed from the skin surface; this can take between 28 and 35 days. Depending on their location, these cells are normally four or five layers thick, and most layers are present on the palms and the soles.

Layers of the epidermis

The epidermis is divided into five layers: stratum corneum, stratum lucidum, stratum granulosum, stratum spinosum and stratum basale.

- *Stratum corneum*: Tough, waterproof uppermost layer, consists of fibrous dead cells, assists with the maintenance of pH and temperature and has a protective role to play. The continual replacement of the millions of worn out cells contributes to the skin's ability to repair itself.
- *Stratum lucidum*: Not always present in some areas of the body and appears where skin is thinner. Provides extra protection in those areas exposed to wear and tear.
- *Stratum granulosum*: In this layer, keratinocytes lose their nuclei and start to flatten and die; keratinisation takes place here. The stratum granulosum helps reduce loss of water from the epidermis.
- *Stratum spinosum*: Contains living cells with spiny processes called *desmosomes*. The stratum spinosum is 8–10 cells thick.
- *Stratum basale*: Also known as the basement membrane, this is the lowest layer. This layer is one cell thick, forming a definitive border between the dermis and the epidermis. Cells at this level continually divide and develop, providing ongoing rejuvenation of the skin. Melanocytes are produced here.

Dermis

The key purpose of the dermis is to support and provide nutrition to the epidermis.

The key component of the dermis is proteinous connective tissue made up of the arc-shaped elastic fibres and undulated and practically inelastic collagen fibres (elastin). Other elements include fibroblasts, mast cells, other tissue cells, multiple blood and lymph vessels, nerve endings, hot and cold receptors and tactile sensory organs.

The dermis contains blood capillaries, sensory nerve endings, lymphatic vessels, sweat glands, sebaceous glands and hair follicles.

The flexible irregular connective tissue made from woven collagen and elastin fibres abound with blood vessels, nerve fibres and lymphatic vessels. Ridges formed from these bundles of collagen run downward, forward and horizontally around the body and are called *cleavage lines*; they are genetically determined and are unique for each person.

Hypodermis

The superficial facia provides anchorage to the skin whilst allowing some capacity for it to move. It offers support to the dermis and is made up primarily of adipose tissue, connective tissue and blood vessels. The fat stored within the hypodermis offers protection to the internal structures, insulating against cold.

Appendages

Hair

Made up of keratin, at the lower end is a bulb or root enclosed in a follicle that produces the hair. The root is indented by a hair papilla, connective tissue and blood vessels. The hair follicle is an epithelium-lined sheath, the arrector pilli (smooth muscle) extends through the dermis, attached to the base of the follicle, and the hair stands on the end when the muscle contracts (Figure 2.2).

There are no hair on the palms of the hands, soles of the feet, nails, parts of the external genitals, lips and nipples. Protection of the skin by hair is constrained; however, its role is to protect the scalp specifically from ultraviolet rays, heat loss and injury. The eyebrows and the eyelashes offer protection from foreign bodies entering the eye.

Nails

The nails are a specialised type of keratin, situated over the distal surfaces of fingers and toes. The nail plate is surrounded on three ends by cuticles (see Figure 2.3).

The function of nails is to assist with the development of fine motor skills, such as grasping, scratching and manipulation. The nails provide protection against trauma to the fingers and toes.

Sebaceous glands

These are located on all parts of the skin except palms and soles; they are more prominent on the scalp, face, upper torso and genitalia, producing sebum, made up of keratin, fat and cellulose debris. Sebum forms a moist, oily acidic film that has antibacterial and antifungal properties (Figure 2.4).

Blood vessels

The blood vessels include arterioles, capillary networks and venules. Blood vessels in the skin are responsible for the transportation and distribution of oxygen, nutrients and hormones, as well as for the removal of waste products.

Nerve fibres

Both the sensory and motor nerves are present within the dermis. The sensory nerve endings are sensitive to touch, or initiate signals producing sensations of warmth, coolness, pain, pressure, vibration, tickling and itching.

Lymphatic vessels

The lymphatic system matches the supply and function of blood vessels.

3 Psychological and social aspects of the skin

Figure 3.1 Changing Faces campaign poster.

Source: Changing Faces 2008.

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Companion website: http://www.ataglanceseries.com/nursing/woundcare/

Case study: Anil

As a result of a road traffic accident when a child, Anil sustained a significant disfiguring scar on his left cheek; the scar had faded over time. When he was younger, Anil was very uncomfortable when having his picture taken or when he saw himself in the mirror; if somebody stared at him, he felt he was being mocked. Recently, as an adult, Anil was hospitalised with shortness of breath. During the ward round where the medical team was discussing Anil's condition, he was very self-conscious and felt he was being criticised and judged. Because of this, Anil became less responsive and less willing to provide any information that could have contributed to his care. As a child, Anil was social, interactive and playful until he was involved in the accident at the age of 5 years. Anil's body image as an adult reflected his early response to trauma and disfigurement.

The skin – psychological and social aspects

The physical presence of the skin as the largest organ of the body is significant in relation to the psychological and social perspectives of a person. The skin has psychological and social components; its appearance can lead to discrimination and also has the ability to reveal a person's state of health and well-being. The relationship between the skin, the mind and the individual has been the subject of study for several years. When practitioners understand this complex relationship, they are then be able to offer assistance with regard to the various coping mechanisms that can be used by people to help them live with wounds – healed or healing. Self-harm, its manifestations and its treatment are addressed in Part 6.

Stress and anxiety

Psychological stress and physiological stress (for whatever reason) can change the wound-healing process. Psychological stress can have a significant clinical impact on wound repair.

Wound-healing processes can be directly impacted by the physiological stress response, whereas psychological stress can impact indirectly resulting in a modification of the repair process; this may occur by the promotion of health-damaging behaviours being adopted by the person.

Wound-healing is an important aspect concerned with the recovery from injury and surgical interventions. If healing is negatively impacted, it can increase the risk of:

- Developing wound infections
- Developing other complications
- Increasing the duration of hospital stay
- Increasing patient discomfort
- Delaying the patient's ability to perform the activities of living and returning to independence.

A significant number of people suffer some form of psychological distress after sustaining a wound or any damage to skin integrity. The person may experience the impact of an altered body image, and this can lead the person feeling devalued by society as well as by those close to them.

A wound in the process of healing or having healed resulting in scar formation can lead to the person believing that they are a social leper and feeling that others do not want to mix or be associated with them. The person's quality of life can be adversely affected.

Anxiety

Anxiety can be associated with a number of things, for example:

- Uncertainty
- Admission to hospital
- Fear of pain
- Fear of death
- Fear of the unknown.

While some degree of anxiety may be beneficial, excessive and prolonged anxiety can lead to psychological and physiological dysfunction. Anxiety and depression tools can be used to help assess and identify the levels of stress experienced. Assessment results can help the practitioner and patient to formulate a plan that will assist in relieving the anxiety and stress being experienced.

Practitioners should consider assessing and reassessing the patient's psychological state as part of the overall plan of care. It is essential to make a baseline observation and then compare consecutive observations with the baseline.

Emotional impact

The physical discomfort and the morbidity often caused by wounds also have an emotional effect on the person, the people delivering care, family members, friends and onlookers. Wounds are often viewed negatively, and patients may feel unattractive, vulnerable, contagious, imperfect and in some instances repulsive. Wounds can be seen as appalling, scary, time-consuming, costly, smelly, dirty, disfiguring, uncomfortable and unpleasant; people can feel humiliated, embarrassed, guilty and shamed because of wounds. All of this can lead to extreme self-consciousness and social isolation.

Management

A multidisciplinary approach is required. A competent psychological assessment and input assures the patients that they are valued, and this can lead to positive health care outcomes. Management strategies should incorporate such interventions that minimise patient distress, including the provision of social support and the development of coping skills. A psychosomatic approach should combine psychological therapy as well as physical therapy that considers the person holistically. The aim should be to eliminate pain if present and consider pharmacological interventions and the physical and psychological components; this must be tailored to each patient's needs. Failing to address issues such as pain can make depression worse and impact further on a person's self esteem.

Cognitive behavioural therapy

The psychological intervention that has the greatest evidence for success is cognitive behavioural therapy (CBT), which includes stress management, problem-solving, meditation, relaxation and goal-setting. In CBT, therapists help patients:

- With their communication skills
- Provide a sense of control
- Cope with the fear of pain and rejection.

This is done through learning positive coping strategies and will go some way to improving the person's mood.

CBT, a talking therapy, focuses on the present and aims to change thoughts and behaviours in order to improve mental health and well-being. The central principle of CBT is that it can change thought and behavioural patterns, having a significant impact on a person's emotions; this approach can help people identify and analyse any counter-productive thoughts and behaviours they may have. A skilled and trained therapist working with the patient can help to ease feelings of anxiety or depression. CBT is recommended by the National Institute for Health and Care Excellence, which has provided guidelines for its use relating to disorders, such as anxiety.

Referral

An appropriate referral may need to be made to other agencies, such as a counsellor, psychotherapist or to external agencies within the third sector, such as the charitable organisation, Changing Faces, http://www.changingfaces.org.uk/ (Figure 3.1).

4 Body image

Figure 4.1 The impact of a wound on a person's self-esteem and body image.

Table 4.1 Examples of communication strategies for addressing body image concerns (source: Adapted from Fingerert 2014).

	Body image challenge	Typical responses	Preferred responses	
			Exploratory phrases	Empathic phrases
1.	'I can't bear to look in the mirror or show my body to my wife since I had my mastectomy'.	You look smashing! Don't worry, the swelling will continue to go down and, in a couple of weeks, things will look even better.	What is it that you see when you look in the mirror?Have you discussed your worries with your wife?	This must be a big change for you, as you used to be more comfortable with your body.
2.	'I rarely leave the house any more since my surgery. I don't like it when people stare at me or talk about my appearance or my garbled speech. I worry about what others think of me, particularly my grandchildren'.	You need to get out more, and then you will feel much better. Your family still needs you and they love you just the way you are.	What do you think your grandchildren think of you now?Do you think your friends and family miss seeing you?	It is obvious that you love your grandchildren a lot. It must be difficult for you to not spend time with them as you used to do.

Wound Care at a Glance, Second Edition. Ian Peate and Melanie Stephens.

Companion website: http://www.ataglanceseries.com/nursing/woundcare/

Case study: Carry Anne

A malignant fungating breast wound is an infiltration of a cancer or metastasis into the skin and the afferent blood and lymph vessels in the breast. Unless the malignant cells are brought under control, through treatment with chemotherapy, radiotherapy or hormone therapy, the fungation may spread outwards by local extension causing damage through a combination of loss of vascularity, proliferative growth and ulceration. Damage is also caused to the patient's psychological well-being.

Carry Anne, 71 years old, was admitted to the surgical ward via the emergency department with an initial diagnosis of malignant fungating breast wound. Carry Anne had delayed seeking help and tried to hide the reality of the cancer. The wound she said has had a huge impact causing her shame. Carry Anne told the nurse that she has given up, feels dirty and no longer feels like a woman. Initially Carry Anne tried to manage the wound herself, but the symptoms had caused revulsion, and this had a significant impact on her psychological well-being. She was embarrassed by the symptoms, and this had taken its toll on her social life. Carry Anne told the nurse about failing to seek medical help, as she was scared this could be cancer.

The visibility of the wound and the odour caused Carry Anne immense distress and changed her relationships with family and friends. She had stopped inviting people to her home, was embarrassed, and had not gone out in over 8 months; she was socially isolated. Carry Anne said she wanted to die.

A wound care clinical nurse specialist undertook an assessment of Carry Anne's physical and psychological needs; there was excessive exudate and leakage, and the odour emanating from the wound was unpleasant. Carry Anne was in pain and the wound site was bleeding. She was constantly itching or wanting to itch. It was evident that Carry Anne was severely depressed, as she had no interest in the care that was being planned or offered. Malignant fungating wounds cause enormous distress and they are associated with significant morbidity. The life expectancy for a person living with such a wound is very short.

The overall aim of the care plan was to make Carry Anne more comfortable, to be less distressed and to reduce the experience of stigma and social isolation as the wound-related symptoms are managed. Malignant wounds do not heal, and in Carry Anne's case she was cared for using palliative methods to control both wound-related symptoms and to manage her pain. Carry Anne died 6 days after admission to the ward.

Body image

In contemporary Western societies, appearances in general and specifically the body image have become central and important concepts. The strong emphasis on the appearance and a beautiful body is very much evident when media images are examined, shop windows are looked at, magazines flicked through and websites visited. The amount of money spent in the pursuit of beauty through dieting, aesthetic surgical procedures and everyday grooming practices reinforces the emphasis placed on the appearance and its esteem.

The body image is associated with the mental representation or perception that we create of what we think we look like; it can or may not bear a close relation to how others really see us; it may be very different from a person's actual physical appearance. Body image is subjected to many different kinds of distortions that can come from internal factors, such as our emotions, moods, our early experiences, the attitudes of our parents and more. However, it has a strong influence on behaviour. Infatuation with and distortions of body image are widespread among those people (as well as onlookers) who have a wound or have a scar that has formed as a result of a wound.

All those with wounds will experience some form of altered body image, and this in turn can have an effect on a person's sense of self-esteem. A person's social and psychological well-being is in danger of being threatened, and as such his/her quality of life can be impacted in a negative and detrimental way. Those wounds that result in disfigurement are

- Amputation
- Mastectomy
- Burns
- Formation of ostomy.

These wounds can profoundly alter the mental picture a person has of him or her – the body image. This is confounded further, as that person may be anxious about the unknown and its prognosis.

Disfiguring surgery, such as mastectomy or amputation, brings with it a dramatic change in body image; this coupled with the diagnosis of a life-threatening condition such as cancer can leave a person vulnerable. Those who have undergone disfiguring surgery with, for example, the loss of a body part may be experiencing and going through the grieving process and having to deal with a number of mixed emotions, such as:

- Loss
- Anxiety
- Withdrawal of social relationships
- Depression
- Suicidal ideation.

Natural changes to body image, for example, the changes that are associated with puberty and ageing, are generally the expected changes, but any development from a wound may not be. Altered body image happens when unnatural or unexpected changes in a person's self-concept occur, for example, a wound. Wounds can bring unexpected challenges and are themselves capable of changing the course of a person's life.

The circumstances, the visibility and the severity under which the injury occurred can have a significant effect on a person's acceptance of the wound associated with his or her altered body image (Figure 4.1). Some people have developed coping mechanisms that enable them to think that the wound does not belong to them (objectification).

Management

The response that a person makes to the presence of a wound (patient, healthcare provider or stranger) is unpredictable. Those wounds that are present on the face, hands and neck are often the most difficult to conceal from the viewpoints of others as well as the person himself/herself. Table 4.1 provides the examples of communication strategies for addressing body image concerns.

Assessing the impact of altered body image

Wound assessment should also take into account the assessment of a person's physical and psychological well-being, as both may have a negative impact upon the wound-healing process (see Chapter 3).

Body image can be adversely affected or altered (temporarily or permanently) as a result of a change in a person's physical appearance, such as trauma or the result of surgical intervention. Acute and chronic wounds have the potential to adversely impact on a person's body image and as such their self-esteem.

There are a number of tools and scales that can be used to assess the impact of altered body image on a person. A five-point Likert scale – the Stigma Scale – has been developed that can be used to provide objective assessment as to how a person views their body image. There are different types of stigma, for example:

- Anticipated stigma (perceived stigma)
- Internalised stigma (self-stigma)
- Experienced stigma (discrimination).

When the results of the assessment are analysed, a care pathway can be formulated to help the patients and their families cope with the problems and challenges they may have. The practitioner should aim to establish a person-centred approach that acknowledges any person as a whole. Neglecting the psychological needs of a person may result in a threat to his/her quality of life and the sense of self. The emotional trauma experienced by people with wounds that result in an altered body image due to disfiguration can take many years of adjustment (and in some cases the person may never adjust to the degree of mutilation experienced).

Each change of dressing brings attention to the injured body part; brings with it pain, a reminder of the injury, how this occurred, as well as possible fears about the future. The way a healthcare provider responds to a wound, for example, through acceptance, compassion, disappointment, repulsion, fear or avoidance, can have a detrimental impact on a person's emotional state and his/her self-esteem.

Referral

It may be necessary to make appropriate referrals to other agencies, such as a counsellor or a psychotherapist, or there may be a need to refer to external agencies where services such as skin camouflage can be offered to people in need of help to grow in confidence and independence.