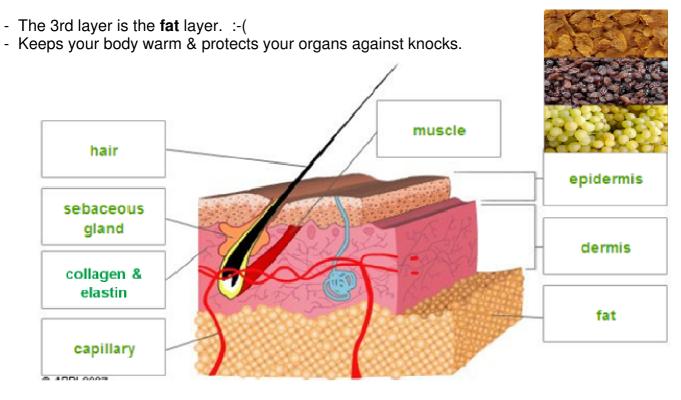
- Skin is made up of 3 layers. Epidermis, dermis and fat layer.
- Top Layer is the **Epidermis**. Depth of a rose petal. Part you can see.
- New skin cells are formed in the base of this layer. GRAPES.
- They take approx 28 days from formation to rise to surface of skin.
- During that journey they go from grapes to raisins to cornflakes.
- Once they reach the surface, they are dead skin cells sometimes 15 layers.
- 95% of the cells in this epidermis layer are designed to make new skin cells.
- The other 5% makes melanin which is the colour or pigment.
- Also on the surface of your skin is hair and sweat pores and oil pores. MOTL
- The **Dermis** is the 2nd layer and is made up of elastin fibres & collagen floating in protein gel.
- Nerve endings, blood vessels, hair shaft and sebaceous glands. 10 40 x thicker than epi.
- Elastin is a protein designed to keep skin tight, firm & elastic. Pinch skin on back of hand.
- Enables skin to bounce back after everyday normal movement such as talking & eating etc.
- Elastin decreases with age as well as free radical damage and more wrinkles appear.
- **Collagen** is also a protein fibre which works hand in hand with elastin in supporting tissue.
- Gives the skin form, strength & firmness. The more **collagen** & elastin = the less wrinkles.
- Think of a bed ensemble. Firm base slats & springs with nice tight material on top. (skin)
- Saggy springs & slats = loose material, lumpy and bumpy. Same as skin.
- Sebaceous glands are connected to the hair follicle and are the oil or sebum factories.
- This oil is designed to protect the skin & hair by keeping everything lubricated.
- An overactive gland = oily skin. Underactive = dry skin.
- Oil comes to surface via shaft that opens to a pore. Pores cannot open or close but can block.
- Blocked pores can result in the appearance of enlarged pores, blackheads, acne & cysts.



- Wrinkles are one of the greatest fears of women & men.
- There are different types of wrinkles caused by different circumstances.
- Wrinkle 1. Grapes Raisins Cornflakes.
- These wrinkles originate in the top layer called the epidermis.
- New skin cells are formed in the bottom part of this layer called the basal layer.
- They take 14 28 days to travel to the surface of the skin, losing moisture along the way turning from plump grapes to dried raisins & eventually dead cornflakes which is what you can see on the surface. Can be up to 15 layers of cornflakes.
- The older you get, the less new skin cells we create <u>and</u> the longer they take to reach the surface. Double whammy. This equals more dried (sultanas) cells.
- Also more layers of dead cells (cornflakes) which inhibits new skin cell production even more. Dehydration also leads to more dying skin cells (sultanas)
- Solution. Add moisture topically to 'plump up' & rehydrate these cells close to the surface.
- The more moisture we add, the more we turn the raisins into grapes, reducing the appearance of lines & wrinkles.
- It is important to note that moisturisers on their own do not stop wrinkles. They merely diminish the appearance of wrinkles temporarily such as say soaking a prune in water. The real work of wrinkle reduction comes in prevention and treatments. Treatments that can be found as additional ingredients in moisturisers and additional & specific treatments. (MOTL)
- Wrinkle 2. The degradation of collagen & elastin. Remember the mattress ensemble.
- Collagen & elastin give skin form, structure, smoothness & elasticity.
- C & E can degrade with age. (Saggy springs & broken slats) Production of new C & E slows.
- C & E also gets prematurely destroyed by free radicals.
- Biggest contributor of free radicals are UVA & UVB rays. Exposure to the sun causes Free radicals to occur. Free radicals are molecules which have become unstable.
- Free radicals attack and destroy the collagen & elastin cells in the dermis which are vital for skin structure, so their deterioration has serious consequences for the skin & wrinkles.
- Smoking. Almost as damaging as the sun in regards to premature ageing!
- Smoking decreases your body of Vitamin C ... a known antioxidant that fights free radicals and also is a key ingredient in keeping skin look plump & moist.
- Pollution particles also stimulate the production of free radicals creating premature ageing.
- These damaged cell membranes 'breathe' with difficulty, skincare products are no longer effective and the skin ageing process is accelerated.
- The most obvious change is the forming of fine lines and wrinkles.
- The skin slowly loses its firmness and elasticity and becomes thinner and more fragile.
- The cellular turnover also slows down which means that the cells renew themselves more slowly, causing the skin to look dull, slackened and lined.
- Since the culprits are free radicals, what are they? Rogue cells that have bad energy
- They then attack the good cells like collagen & elastin, destroying them in a chain reaction.
- The more free radicals, the quicker the chain reaction, the more ageing.
- Solution. Antioxidants absorb & destroy free radicals stopping the chain reaction.
- Therefore, introducing antioxidants stop the ageing process & start up rejuvenation processes.
- Types of antioxidants are vitamins C E A. Then versions of these are retinols, grape seed, C10 so anything that has antioxidents are very good for anti ageing.

- Wrinkle 3. Collagen breakage through repetitive movement.
- One cause of wrinkles is the loss or breakage of collagen and elastic fibres by repeated motion of the skin, repeated creasing and folding such as frowning, smiling and squinting.
- All of these things fold the skin back and forth fold the collagen back and forth and causes it to break.
- So, think of a paper clip as a collagen fibre. What happens if we fold a paper clip back and forth, back and forth? Well after enough folds back and forth it breaks. Exactly the same as your collagen fibres.
- Once broken, we can minimise the appearance of these by adding ingredients such as peptides & tri-peptides which tell your own body to produce MORE Collagen. More collagen = respringing of the mattress springs. Less wrinkles.
- Wrinkle 4. Draw an imaginary line across your neck, and whatever the outcome of weight loss, above the line you will have the opposite affect of satisfaction to that of below that line whether it is weight gain or weight loss.
- Losing weight causes a loss of structure of the subcutaneous fat layer that helps to plump up the skin. A loss of this fat causes any existing facial lines or wrinkles, creases, contours, hollows to sag and make them deeper and more pronounced.

### A - B - C - D - E of SKIN CANCERS!

Although we are not doctors, or even nurses ... It is important to educate on the danger signs of skin cancers. DO NOT LOOK AND DIAGNOSE - always refer to a doctor. It would only take you 2 minutes to go through these 5 quick points - and I believe it is an important education.

Remember - if ANY customer asks you to look at a spot, mole, lump or bump - simply respond by saying ... I am not allowed or qualified to look. If you are not sure - go and see your doctor.

- A Asymmetry. If a mole is asymmetrical or irregular in its shape.
- **B** Borders. If a mole has irregular borders. Around the edges.
- C Colour. If the colour of a mole is varying or dark.
- **D** Diameter. If the diameter is more than the eraser on a pencil.
- E Evolving. If the mole changes in anyway, shape or form.

There are 3 types of skin cancer. Melanoma being the most dangerous. SC is caused by the UV rays of the sun and solariums along with other factors. Sunburn is a major cause. Over 95% of SC are treatable.

Australia has the highest rate of SC in the world. Wearing an SPF is the absolute best prevention. Early detection is the absolute best chance for survival.

A tan is melanin in the skin reacting to the UV rays in sun exposure and is a sign that the skin is getting UV radiation damage. It is not a sign of good health but rather of the skin cells being in trauma. These traumatised cells become permanently damaged and then begin to divide and invade healthy cells around it.

#### Step 1: Cleansers and Toners

- You need to prepare your skin for effective treatment first by cleansing and toning.
- Eliminates make-up, perspiration & oily secretions as well as environmental enemies such as dust, smoke & pollution from the skin.
- Cleansing conditions the skin & increases the effectiveness of all the other products you need to use.
- Toners are important to complete cleansing as they rinse and balance the skin.
- Toners complete the cleansing process.
- Toners remove residual dirt, oil, impurities & cleanser that has been left behind.
- Toners are topical and not absorbed.
- The Nutrimetics Cleansers and Toners are pH balanced with the skin.
- A correct pH balance is 4.7 & is necessary for your skin's natural acid mantle to function as a protective shield against external aggressions.
- The acid mantle is a thin oily film that sits on top of the outmost layer of our skin.
- This slight acidity on your skin is designed to neutralise the many harmful irritants that can attack our skin which are usually alkaline in nature. (pH higher than 7)
- Stripping the skin of this natural pH level leaves it vulnerable to bacteria that will lead to acne, infection or irritation.
- Although many people like the 'clean feeling' of washing with soap & water, they have a HIGH pH level, (just 1 level under bleach) therefore stripping away these natural defence systems.

Typical pH Values.		
pН	Туре	Example
0	Acidic	Battery Acid
1	Acidic	Stomach acid
2	Acidic	Lemon Juice
3	Acidic	Vinegar
4	Acidic	Tomatoes
5	Acidic	Human Skin
6	Acidic	Milk
7	Neutral	Drinking Water
8	Alkaline	Sea Water
9	Alkaline	Baking Soda
10	Alkaline	Milk of Magnesia
11	Alkaline	Ammonia
12	Alkaline	Soapy Water
13	Alkaline	Bleach
14	Alkaline	Liquid Drano

- Maintaining the natural acid mantle is critical to healthy skin.
- That is why the pH of your skin care products is vital.

### Step 2: Exfoliators

Why use exfoliating products?

- Cleansers are designed to remove surface impurities while exfoliators are designed to remove the dead surface skin cells or 'cornflakes' on the surface of our skin.
- These dead skin cells make your skin look blotchy, matt, tired and they also discolour with brown pigments, leaving skin with an uneven skin tone & colour.
- Dead skin cells can also lead to the clogging of our pores which can lead to enlarged pore openings, black heads and acne.
- Exfoliating lifts more deeply embedded impurities and dead surface skin cells; helping to preserve and promote the purity and youthful radiance of the skin.
- Stimulates cellular renewal, (tells our body to produce more 'GRAPES' therefore plumping up our skin) and this helps prevent and diminish visible signs of ageing (fine lines, wrinkles) and maintaining naturally firm, supple skin.
- Increases the skin's receptivity to, and the effectiveness of, complementary treatment products.
- Think of it as sanding off old flaky paint before you repaint a surface.
- There are 2 ways to exfoliate. Mechanical and Chemical.
- Mechanical is using mild abrasives such as granule cleansers and micro dermabrasions. These use a manual sanding action to remove these dead layers, leaving bright, healthier, better looking and younger skin.
- Chemical exfoliant such as Glycolic Acid & Salicylic Acid simply breaks down the 'glue' that holds the cells together as well as dissolving the extra stubborn dead cells.
- Both types are amazing, but need to be used as one or the other, not both at the same time. However you can safely alternate them.

#### Step 3: Masques

- The skin often needs a deep-down treatment. Instead of the cost and inconvenience of visiting a beauty salon each week, applying a masque after exfoliation provides a thorough at-home treatment.
- Masques are used as an additional vehicle to apply moisture, treatments, nutrients etc to the skin for a longer or more prolonged period of time, adding to the benefits of the treatment.
- Nutrimetics offer a number of benefits with our masques being to Detoxify Hydrate and Firm.

#### Step 4: Moisturisers

- Moisturisers or day crèmes are designed primarily to replenish the skin of lost moisture due to being exposed to environmental factors such as pollution, sun, wind and air conditioning which all contribute to stripping the skin of its moisture and increasing sensitivity and dehydration.
- Think of them as giving your skin a 'drink' when it is thirsty.
- They are also used as a vehicle to deliver to the skin such essential products in relation to anti ageing, such as antioxidants, peptides, SPF.
- It is important to note that moisturisers on their own do not stop wrinkles.
- They merely diminish the appearance of wrinkles temporarily such as say soaking a prune in water. The real work of wrinkle reduction comes in prevention and treatments. Treatments that can be found as additional ingredients in moisturisers and additional & specific treatments

#### Step 4: Moisturisers – Night Creams

- If moisturisers are like a 'drink for your thirsty skin', then night crèmes can be thought of as food for the skin.
- While your day crème provides moisture to the skin during the day, your night crème provides its nourishment, replenishing any nutrients lost during the day.
- Also used as a vehicle to apply the main anti ageing products to the skin to further decrease the look of fine lines, wrinkles etc

### Step 5: Eye Products

- The eye area is one of the first places to show signs of ageing because the skin around the eyes is much thinner, more fragile and contains very few oil glands.
- It is important to use products designed specifically for the eye area which are ophthalmologically tested for use around the eyes.
- Not only is the eye area prone to premature ageing, it also dehydrates more rapidly which results in the formation of crow's feet and fine lines.
- The eye area is also prone to wrinkles due to continual creasing with laughing etc. This continual creasing 'breaks' the collagen structure, causing permanent lines.
- Using an eye cream is also used as a vehicle for antioxidants and peptides which will stimulate the bodies own production of more collagen which will decrease the appearance of these lines and wrinkles.

#### Step 6: Serums

- Serums are concentrated formulations designed to penetrate to a deeper level of the epidermis, carrying intense treatment ingredients to where the skin needs them most.
- Serums can be used in place of your night crème (if your skin is not too dry) or under your day or night crème (as required).

**ALPHA HYDROXY ACID** - Natural fruit - derived acids which are capable of restructuring the surface of the skin by gently assisting in the shedding of older skin from the surface.

**AMINO ACID** - An organic acid which is one of the essential 'building blocks' of proteins.

**ANTIOXIDANTS** - Ingredients which combat 'oxidation'. Oxidation is a breakdown process in the presence of oxygen. The main catalyst in the body is a high reactive molecule called a free radical, which is capable of affecting or harming living cells. Antioxidants work by either neutralising or reducing the potential harmful effects of free radicals. Antioxidants basically STOP the chain reaction of free radicals damaging good cells any further.

**BLACKHEAD** - Occurs when there is a build up of sebum in a pore.

**COLLAGEN** - A natural protein seen as bundles of fibres which give the skin its strength and firmness. These fibres help to keep our skin supple. When exposed to ultra violet rays and other free radicals, they will shrink and lose their strength, shape and structure. This is one of the main causes of the appearance of ageing.

**DERMATITIS** - Inflammation of the skin caused by an external irritant. A reddening occurs with considerable blistering and swelling.

**ECZEMA** - Characterised by red patches, itching, blisters and scaling. There are many different reasons, causes, severity and treatments.

**ELASTIN** - The fibres that lie in the dermis layer along with collagen. These give your skin the 'snap' or elasticity to our skin. Also degenerates along the same way as collagen and causes the actual visible signs of ageing.

**EMOLLIENT** - Ingredient which produces a feeling of softness and or smoothness to the skin.

**EMULSION** - A permanent combination of oil and water. The combination is achieved through the use of mixing, temperature control and emulsifiers. (ingredients that have the ability to mix oil and water to varying degrees)

**ESSENTIAL FATTY ACIDS** - helps to retain moisture.

**HUMECTANTS** - Ingredients which attract and hold moisture. They can attract moisture from the atmosphere or from the product itself.

**LIPOSOMES** - A tiny spherical structure which is hollow. A liposome has the ability to be readily absorbed into the skin. It is capable of acting as a carrier for many different ingredients which can be contained inside the hollow centre of the sphere. Once absorbed, they break down and deliver their contents to where they are needed most.

**MELANIN** - All races contain some melanin in their skin. The darker the skin, the greater amount of melanin. The dark pigment absorbs harmful ultra violet rays present in sunlight.

Melanin is produced by large branched cells called melanocytes. Constant sun over the years will create age spots. (not your liver)

**MILIA** - Small white lumps under the skin surface. Often found on new born babies.

**pH BALANCED** - A term which is used to describe products which have had their natural pH altered in some way to achieve a desired result. This is normally done to balance a product pH to the same as that of the skin between 4.5 and 5.5. pH stands for potential hydrogen. A measurement of acid / alkaline properties.

**PIGMENTATION** - A discoloration of the skin forming dark markings. Can be caused by over exposure to the sun and can be present throughout pregnancy due to hormonal changes.

**PSORIASIS** - A form of skin scaling which can often be associated with anxiety, usually attacking the scalp, elbows and knees. It consists of thick patches of hard, dry scales below which the skin is red. This is not infectious.

**SPF** - Sun Protection Factor. It is a measure of the amount of protection being offered by the product to the skin.

