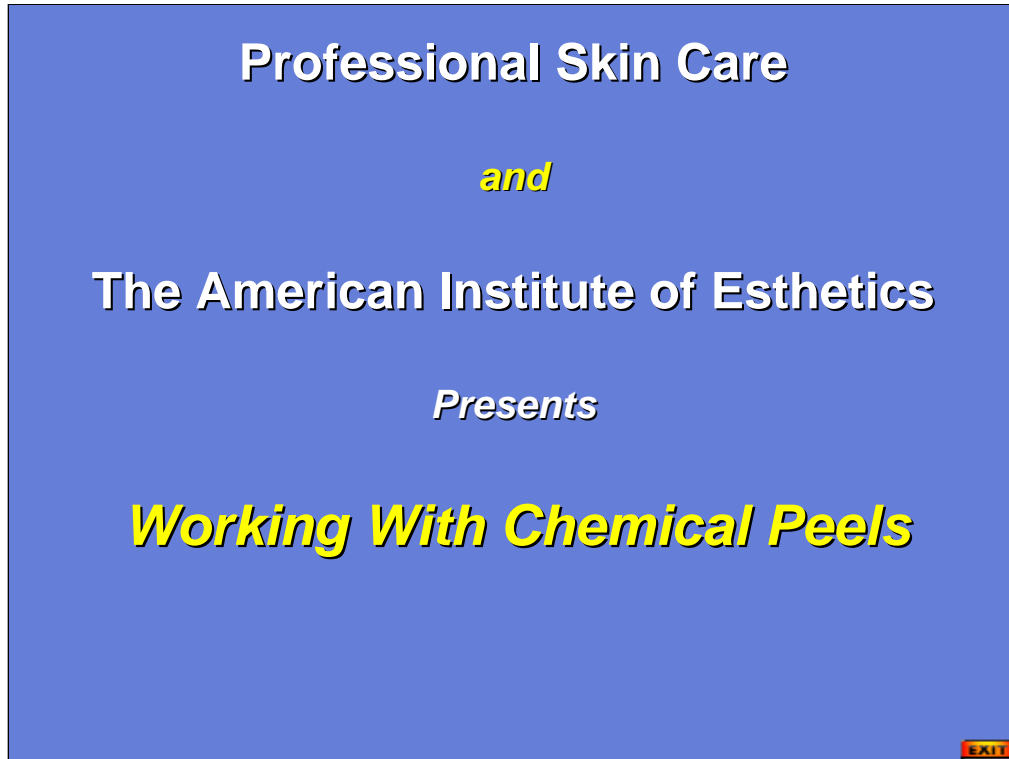


ONLY
YOURTM
SKIN CARE X

Holistic Botanicals



WORKING WITH CHEMICAL PEELS



Professional Skin Care

and

The American Institute of Esthetics

Presents

Working With Chemical Peels

Working With Chemical Peels

CLASS QUIZ & CERTIFICATE

At the End of this Class You will be redirected to a short quiz

A Certificate of Completion
Will Be Awarded If a Passing Grade is Achieved

To be eligible to take this quiz & receive your certificate,
you will need:

Your Esthetic License Number
State and Date of Issue
Your ONLY YOURx Customer Number
Your Email Address



Working With Chemical Peels

CLASS OUTLINE

- **Different Types of Chemical Peels**
 - *How They Work, How They're Classified*
- **Alpha Hydroxy Acids**
 - Glycolic, Salicylic, Lactic
 - *Indicated Skin Conditions, Contraindications, Benefits, Potential Side Effects*

EXIT

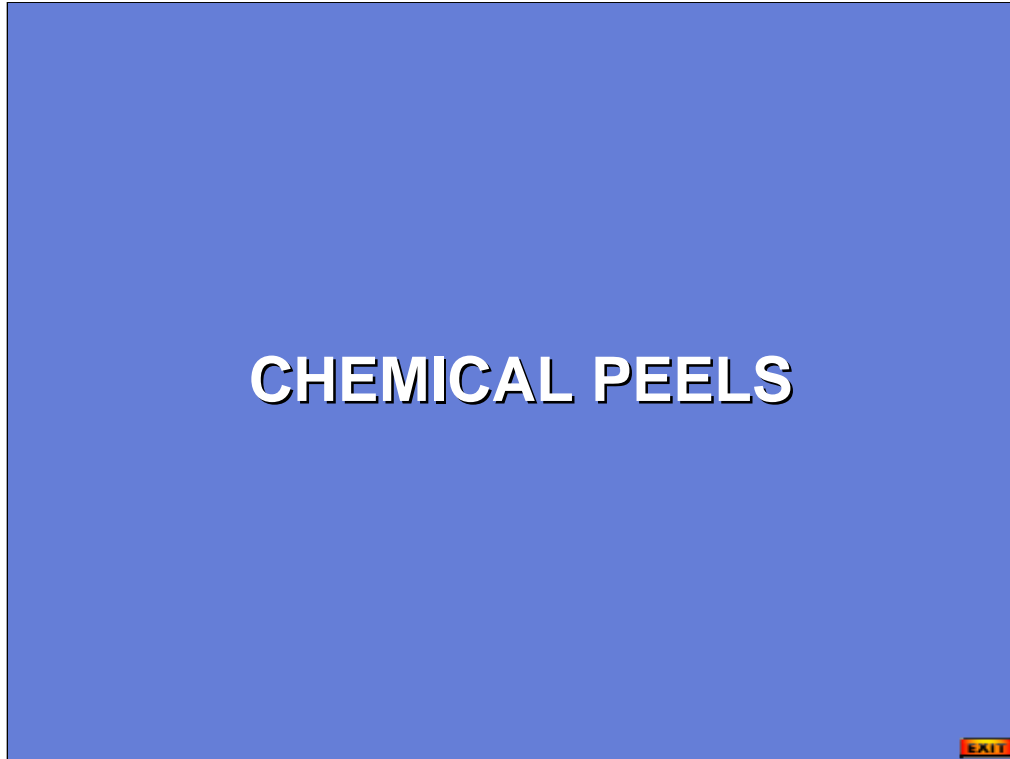
Class Outline

Different Types of Chemical Peels

- *How They Work, Protocol*
- *How They're Classified*

Alpha Hydroxy Acids

- *Glycolic, Salicylic, Lactic*
- *Indicated Skin Conditions*
- *Contraindications*
- *Benefits*
- *Potential Side Effects*



Chemical Peels

Working With Chemical Peels

CHEMICAL PEELS

Chemical Peeling Involves Application of a Chemical Solution To Produce Removal of Outer Layers of the Skin By “Wounding the Skin”

- Wounded Skin Stimulates Regeneration in the healing process
- Damaged tissue is removed
- New tissue is constructed

EXIT

Chemical Peels – How They Work

Chemical peeling involves the application of a chemical solution to produce removal of the outer layers of the skin by “wounding the skin”

- Wounded Skin Stimulates Regeneration in the healing process
- Damaged tissue is removed
- New tissue is constructed

Working With Chemical Peels

CHEMICAL PEELS

Depth of Skin Removed Depends On:

1. Type of Acid Used
2. Strength of Product
 - % of Acid
 - % of Free Acid Range
 - pH of Acid
3. How Long It Is Left On Skin
4. What Condition the Skin is In

EXIT

Chemical Peels – How They Work

Depth of Skin Removed Depends On:

1. Type of Chemical Used
2. Strength of Product
 - % of Acid
 - % of Free Acid Range
 - pH of Acid
3. How Long It Is Left On Skin
4. What Condition the Skin is In

Working With Chemical Peels

CHEMICAL PEELS

How Deep They Work On The Skin

- 1. Superficial Peels – Esthetic Peels**
Removes outer layers of skin or epidermal layers
- 2. Medium Depth Peels – Physician or Supervised**
Removes epidermal layers and upper dermal layer
- 3. Deep Peels – Physician Only**
Peeling extends deeper into lower dermal layer

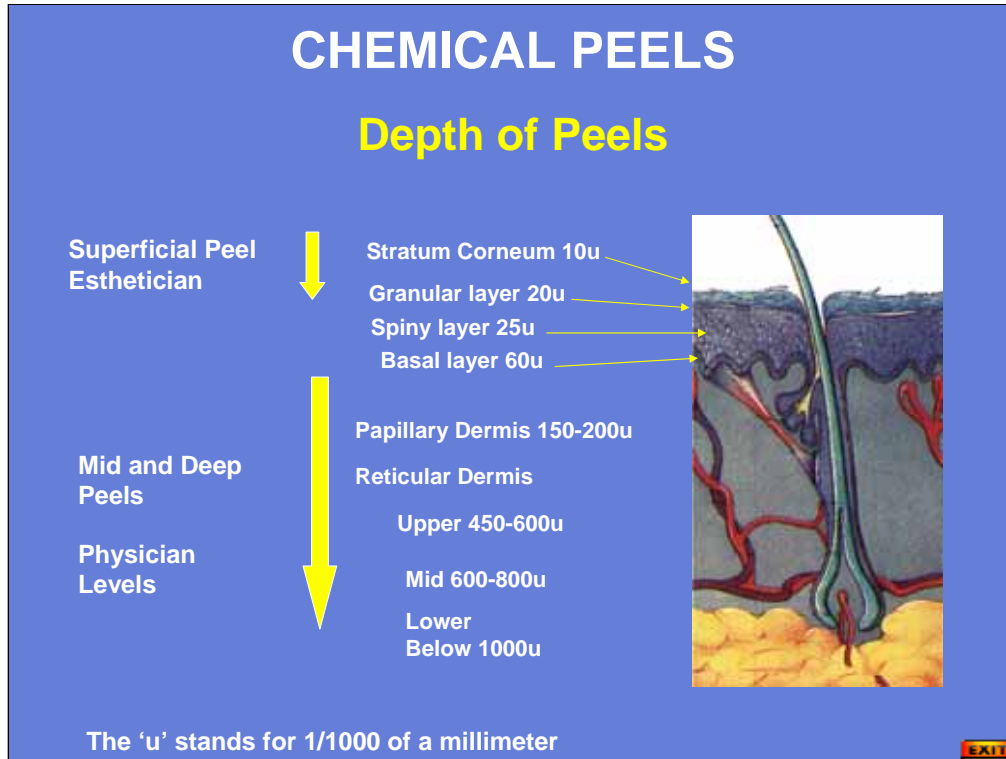
EXIT

Chemical Peels – How They Are Classified

How Deep They Work On The Skin

1. Superficial Peels – Esthetic Peels
Removes outer layers of skin or epidermal layers only.
2. Medium Depth Peels – Physician or Supervised
Removes epidermal layers and upper dermal layer. Penetrates papillary dermis, performed under medical supervision.
3. Deep Peels – Physician Only
Peeling extends deeper into lower dermal layer - Penetrates upper to mid reticular dermis

Working With Chemical Peels



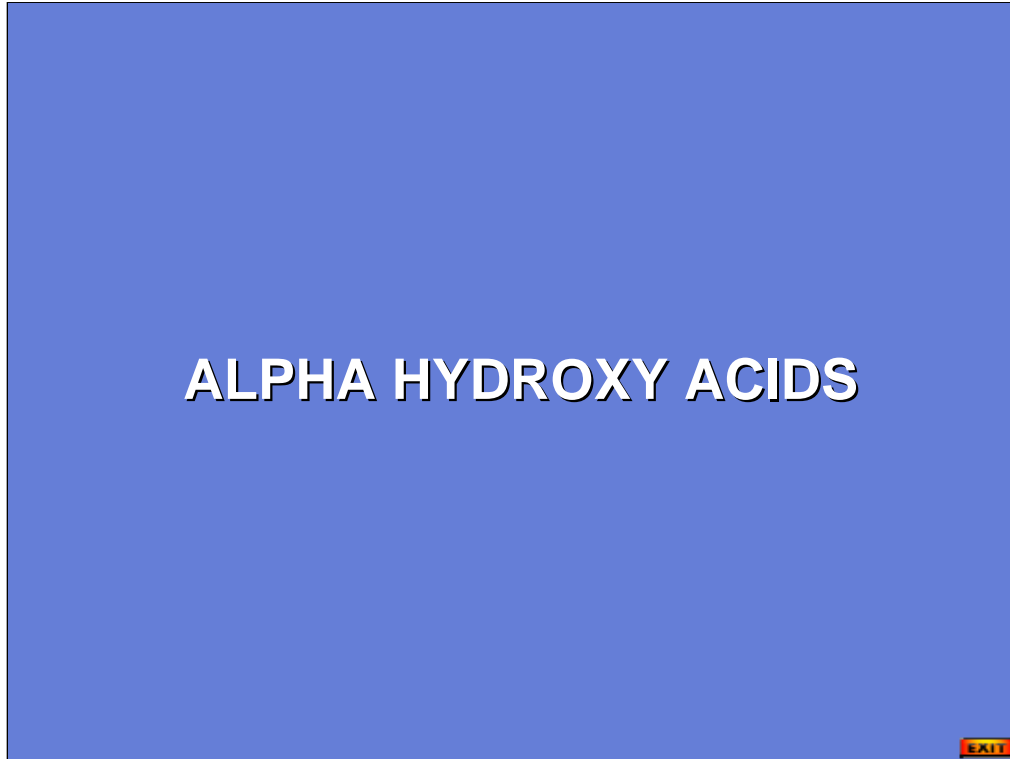
Chemical Peels – Depth of Peels

This cross-section of the skin shows the depth of peels.

The superficial peels only penetrate into the top layers of the epidermis.

The mid-depth peels penetrate into the upper dermal layer and the deep peels penetrate into the lower dermal layer of the skin.

We will be reviewing only esthetic peels in this class.



Alpha Hydroxy Acids

ALPHA HYDROXY ACIDS

Group of Structurally Related Organic Acids Found
in Natural Sources

Acid	Source	Molecular Weight
• Glycolic	Sugar Cane, Honey	78
• Lactic	Bilberry, Sour Milk	90
• Malic	Apples, Sugar Maple	134
• Tartaric	Wine, Grapes, Passion Fruit	150
• Citric	Citrus Fruits	192

ALPHA HYDROXY ACIDS

AHAs are a group of structurally related organic acids found in natural sources or synthesized in the laboratory. They are used to promote desquamation (cellular exfoliation), stimulate cellular renewal and improve the appearance of the skin.

The following are natural sourced AHAs:

Acid	Source	Molecular Wt
Glycolic	Sugar Cane, Honey	78
Lactic	Bilberry, Sour Milk	90
Malic	Apples, Sugar Maple	134
Tartaric	Wine, Grape, Passion Fruit	150
Citric	Citrus Fruits	192

ALPHA HYDROXY ACIDS

Glycolic & Lactic are Most Used Peels

- Efficacy varies with %, pH, free acid range
 - Diminishes corneocyte cohesion
 - Enhances penetration of products
 - Depending on Strength/pH of Glycolic Acid - it can stimulate collagen synthesis
 - No known systemic toxicity
 - No down time

EXIT

ALPHA HYDROXY ACIDS

The most widely used alpha hydroxy acids are glycolic acid and lactic acid. Both acids can penetrate skin well and are backed up by numerous clinical studies regarding their effectiveness.

Efficacy varies by the % of the peel, pH and the Free Acid Range

These superficial peels:

- Diminishes corneocyte cohesion
- Enhances penetration of products
- Depending on Strength/pH of Glycolic -can stimulate collagen synthesis
- No known systemic toxicity
- No down time

HOW AHA'S WORK

AHA's Diminish Corneocyte Cohesion

- Corneocytes held together by ionic bonding forces of cellular glue
- **Disrupt ionic bonding between cellular glue & corneocytes**
- Dissolve lipid bonds between cells
 - Causes cells to 'unglue' and shed
- **Penetrates by lipid phase of intercellular cement**

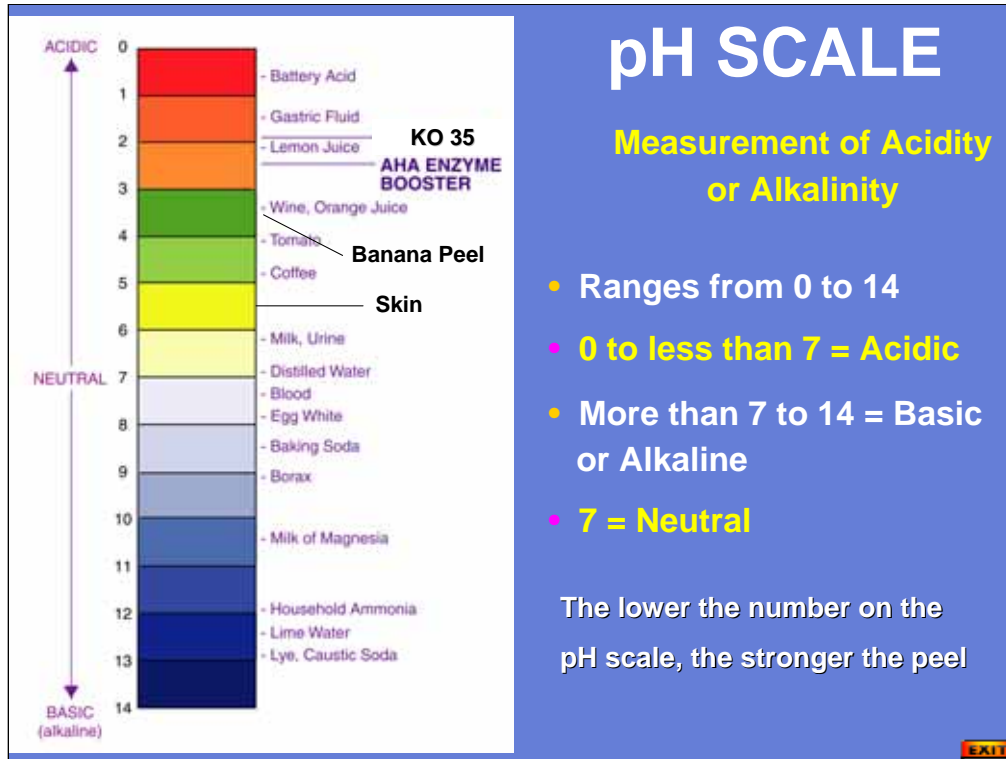
EXIT

HOW AHA'S WORK

Corneocytes are held together by ionic bonding forces of the cellular glue. AHAs disrupt this ionic bonding or 'corneocyte cohesion' by dissolving the lipid bonds between the cells at the lower levels of the stratum corneum. This causes the cells to "unglue" and shed. These type of peels do not actually cause the skin to visibly "peel". Corneocyte cohesion refers to the intercellular cement or "glue-like" bonding between the cells.

AHAs penetrate by using the lipid phase of the intercellular cement as its pathway into the stratum corneum. It helps to visualize the intercellular cement as an emulsion, a mixture of water and oil. AHAs interfere, or disorganize the lipid (oil) phase of the intercellular cement. As glycolic acid has the lowest molecular weight of all of the AHAS, it penetrates faster.

Working With Chemical Peels



pH SCALE

The pH scale measures the acidity or alkalinity of a solution. It ranges from 0 to 14. A pH of 7 means it is a neutral solution. Pure water has a pH of 7. A pH of less than 7 means the solution is acidic. A pH of more than 7 means the solution is alkaline. The less pH, the more acidic the solution is. The more pH, the more alkaline the solution is.

The pH scale is logarithmic which means that moving one unit either way on the pH scale results in a 10 fold increase in the degree of alkalinity or acidity.

Each whole pH value below 7 is ten times more acidic than the next higher value. For example, a pH of 4 is ten times more acidic than a pH of 5 and 100 times (10 times 10) more acidic than a pH of 6. The same holds true for pH values above 7, each of which is ten times more alkaline than the next lower whole value. For example, a pH of 10 is ten times more alkaline than a pH of 9.

In regard to peels, the lower the pH number, the stronger, more intense is the peel. This is key in determining the efficacy of an AHA – the pH – more so than the percentage of acid.

Working With Chemical Peels

NEUTRALIZING

Raises pH of Product

Ingredients commonly used for neutralization:

- Sodium Hydroxide
- Ammonium Hydroxide

May reduce amount of free acid in product

EXIT

NEUTRALIZING

Neutralization raises the pH of a product. Ingredients commonly used for neutralization include sodium hydroxide and ammonium hydroxide.

Neutralizing reduces the amount of free acid in the product. Free acid refers to the amount of acid actually available.

Working With Chemical Peels

BUFFERING

Resists pH Changes With Addition of Acid or Alkali

Ingredients commonly used for buffering:

- Sodium Glycolate
- Phosphoric Acid
- Monosodium Phosphate
- pH of acid can be maintained
- May reduce amount of free acid in product

EXIT

BUFFERING

Buffering creates a solution that resists pH changes when an acid or alkali is added. Ingredients commonly used for buffering include Sodium Glycolate, Phosphoric Acid and Monosodium Phosphate.

When buffering occurs, the pH of the acid can be maintained.

Just like neutralization, buffering reduces the amount of free acid in a product. The percentage of free acid, as expressed by pH, is an excellent indicator for efficacy and potential for irritation.

Working With Chemical Peels

FREE ACID RANGE

Free Acid refers to the Amount of Acid Actually Available in a Product

Example:

There is a container of acid and sodium hydroxide is added.
Sodium hydroxide is used in AHAs to neutralize which raises the pH.

The sodium hydroxide attaches to the acid, binds up some of the acid.

It will raise the pH and lower the acid available.

Lower pH formulas have more bio-availability since more free acid is present.

A 35% Glycolic Acid that is neutralized could actually have 17% "free acid range".

EXIT

Free Acid Range

Free Acid Range refers to the amount of acid actually available in a product.

For example, say you had a tank of acid and put sodium hydroxide in the tank. The sodium hydroxide attaches to the acid, it's going to bind up some of the acid. It will raise the pH and lower the acid available. Lower pH formulas have more bio-availability since more free acid is present.

A 35% Glycolic Acid that is neutralized could actually have only 17% free acid range.

Working With Chemical Peels

FREE ACID RANGE

Relationship of AHA and pH Used Is Important

- AHA's are more effective with a lower pH
- Greater risk of irritation, side effects and stinging
- Most AHA retail products are buffered for less chance of irritation and stinging

The Percentage of Free Acid is an Excellent Indicator for Efficacy

- Proper protocol must be followed to prevent irritation and sensitivity when using an acid with a low pH and a high percent of free acid

EXIT

Free Acid Range

AHA formulas are more effective with a lower pH. There is however, a greater risk of irritation, side effects and stinging. Most AHA retail products have been buffered to some degree to limit the stinging and discomfort of the acid.

The Percentage of Free Acid is an Excellent Indicator for Efficacy

- Proper protocol must be followed to prevent irritation and sensitivity when using an acid with a low pH and a high percent of free acid

BENEFITS OF AHA'S

- **Retexturizing, Smoothes and Refines**
- Softens Fine Lines and Wrinkles
- **Improves Tone and Clarity**
- Management of Acne-Prone Skin
- **Reduces Follicular Congestion**
- Fades Hyperpigmentation
- **Brightens the Skin**

EXIT

BENEFITS OF AHA USE

- **Retexturizing:** Removes build-up of dead skin cells that can cause an uneven appearance in texture. Stimulates cell renewal. Reveals smoother, fresh, younger-looking skin.
- **Smoothes Lines:** Thins the stratum corneum, evens the "hills & valleys" of the skin's surface. Thickens the dermis by increasing moisture in 'gags' – glycosaminoglycans.
- **Improves Tone:** AHAs thin the stratum corneum. The skin becomes more translucent. Enhances firmness by producing densely populated epidermal cells.
- **Management of Acne-Prone Skin / Reduces Follicular Congestion:** Removes surface dead skin cells and within the follicle, which helps prevent the follicle from becoming clogged. Reducing follicular debris and retention greatly reduces the development of new comedones. AHAs are effective in "opening up" the follicles because they interfere with corneocyte bonds that hold the dead cells together. With the follicles opened, other treatment products, such as Benzoyl Peroxide, can penetrate into the follicles to kill bacteria and interrupt the Retention Hyperkeratosis process.
- **Fades Pigmentation:** Reduces pigment buildup in the stratum corneum. Irregularities in pigmentation can fade or disappear.

Working With Chemical Peels

POTENTIAL SIDE EFFECTS

- 1. Increased sensitivity to UV exposure**
2. Stimulate inflammation mediators (cytokines)
- 3. Induce hyperpigmentation**
4. Adverse reactions:
 - Burning, redness, swelling, blisters, scabs

EXIT

POTENTIAL SIDE EFFECTS

1. AHA's increase sensitivity to UV exposure.
2. AHA's can stimulate inflammation mediators, called cytokines.
Cytokines are small secreted proteins which mediate and regulate immunity and inflammation
3. AHA's may induce hyperpigmentation.
4. Adverse reactions include burning, redness, swelling, blistering, scabs and rashes.

Working With Chemical Peels

MINIMIZE SIDE EFFECTS

1. Daily use of sunscreen SPF 30

- For UV protection & prevent hyperpigmentation

2. Schedule treatments 14 days apart

3. Recommend Bleaching Agent for home care

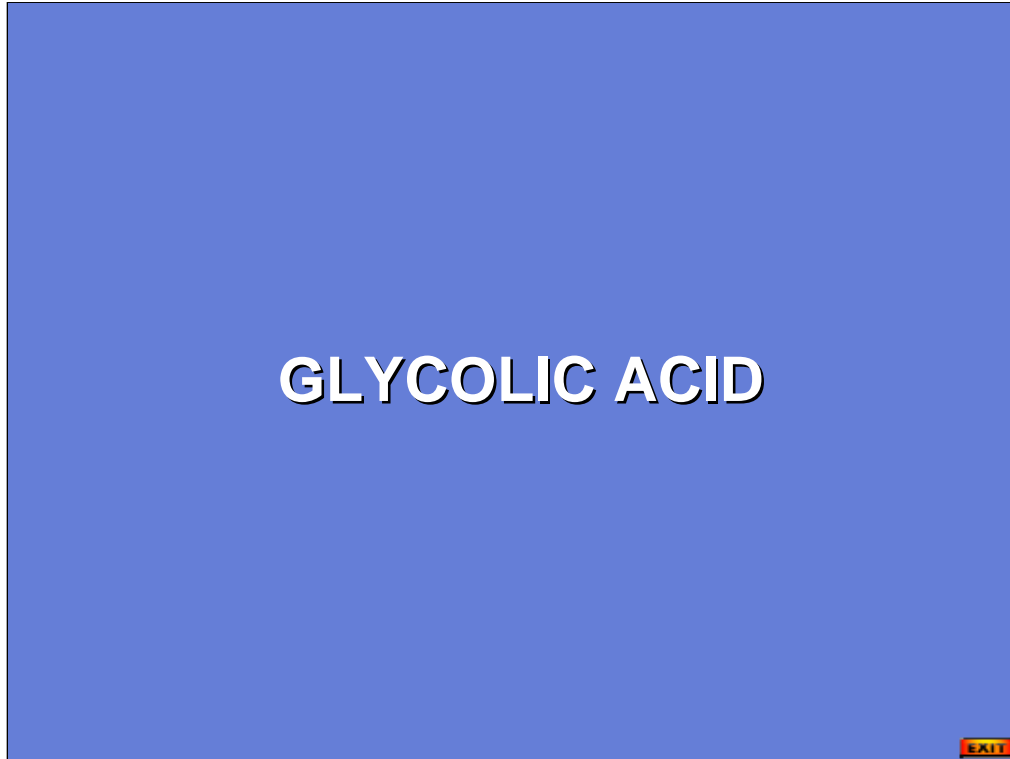
4. Follow the treatment protocols

- Make sure client follows pre & post peel instructions

EXIT

MINIMIZING AHA SIDE EFFECTS

1. To counteract skin sensitivity to UV exposure and to prevent hyperpigmentation, make sure your client uses an SPF 30 sunscreen daily.
2. When doing a series of peels, to counteract inflammation mediators, schedule the treatments at least 14 days apart.
3. To protect against or to treat hyperpigmentation, recommend ONLY YOURx Whitening Serum or Bleaching Lotion.
4. To prevent adverse reactions, follow the treatment protocols. Make sure your client follows the pre and post peel instructions.



GLYCOLIC ACID

GLYCOLIC ACID

Multifunctional:

- Exfoliates dead skin cells
- Retexturize the skin
- Stimulate Cellular Regeneration
- Loosen Impactions
- Fade Hyperpigmentation
- Soften Fine Lines
- Brighten the complexion

EXIT

GLYCOLIC ACID

Glycolic Acid is multifunctional:

- Exfoliates dead skin cells
- Retexturizes – smoothes and refines the skin
- Stimulates cellular regeneration
- Loosen impactions for ease in removal
- Slowly helps fade hyperpigmentation
- Softens fine lines
- Brightens the complexion

Working With Chemical Peels

GLYCOLIC ACID

- **Dissolves Lipid Bonds Between Cells**
- Smallest Molecular Weight, Penetrates Deepest of AHAs
- **Works Well on both Aging and Acne Skin Conditions**
- Works Well on All Fitzpatrick Skin Types including V & VI
- **Mildly stimulates Collagen and GAG's**
- Delivers Fastest Results on Smoothing & Retexturizing
- **Best for Product Penetration**
- Immediately 'refreshes' the Skin

GLYCOLIC ACID

- Dissolves the lipid bonds between the cells
- It has the smallest molecular weight so it penetrates the deepest of all AHA's
- Works well on both aging and acne skin conditions
- Works well on All Fitzpatrick Skin Types including V & VI
- Can stimulate Collagen synthesis
- Delivers the fastest results on smoothing & retexturizing the skin
- It offers the best results for product penetration
- Immediately 'refreshes' the skin

Working With Chemical Peels

GLYCOLIC ACID

Skin Indications:

- Photo-Damaged Skin
- Rough Texture
- Fine Lines/Wrinkles
- Acne, Milia
- Dull, Asphyxiated Skin

Contraindications:

- Pregnancy
- Lactation
(Or have them ask physician)
- See Consent-Release Form for all others

EXIT

GLYCOLIC ACID

Skin Indications:

- Photo-Damaged Skin
- Rough Texture
- Fine Lines/Wrinkles
- Acne, Milia
- Dull, Asphyxiated Skin

Contraindications:

- Pregnancy
- Lactation (or get Dr release)

See "Consent-Release" form for all other contraindications. They are also listed in the "Rainforest Treatment Techniques" class.



SALICYLIC ACID

BETA HYDROXY ACIDS

Smooth the Skin by Dissolving Corneocytes

Acid	Source	Molecular Weight
• Salicylic	Willow Bark, Wintergreen leaves, Sweet Birch	138

BETA HYDROXY ACIDS

Beta Hydroxy Acids work by speeding up the turnover of skin cells. They dissolve the glue that holds corneocytes or dead skin cells in the top layers, allowing the fresh cells beneath to emerge.

BHA's smooth the skin and allow the normal shedding process to occur. The effects are less potent than those of the Alpha Hydroxy Acids.

Salicylic Acid is found naturally in willow bark, wintergreen leaves and sweet birch. It's molecular weight is 138, larger than Glycolic and Salicylic Acid.

SALICYLIC ACID

Multifunctional:

- Exfoliates dead skin cells
- Retexturizes the skin
- Loosen Impactions
- Stimulates Cellular Regeneration
- Antimicrobial / Antiseptic

EXIT

SALICYLIC ACID

Salicylic Acid is Multifunctional:

- Exfoliates dead skin cells and within the follicles
- Retexturizes the skin, smoothes and refines it
- Loosen Impactions for ease in removal
- Stimulates cellular regeneration
- Antimicrobial / Antiseptic

Working With Chemical Peels

SALICYLIC ACID

Keratolytic Agent

- Derived from the Bark of the Willow Tree
- **Dissolves Corneocyte Cohesion & Within Follicle**
- Lipophilic – Helps Dissolve & Prevent Comedones
- **Larger Size Molecule than AHAs, Less Irritation**
- Works Well on Grades 1 & II Acne
- **Works Well on All Fitzpatrick Skin Types Including V & VI**

SALICYLIC ACID

Salicylic Acid, a beta hydroxy acid (BHA) derived from the bark of the willow tree. It works on the surface, dissolving the top layer of corneum cells and deep within the follicles.

As a lipophilic acid, salicylic effectively penetrates pores and helps dissolve comedones. Because it encourages exfoliation and reduces pore size, pores are less likely to become clogged with dead skin cells and excess oil.

Because of the larger size molecule, Salicylic Acid produces less irritation than AHAs. Salicylic Acid products work well on mild breakout –Grades 1 & II Acne. It also works well on all Fitzpatrick Skin Types including V and VI.

Working With Chemical Peels

SALICYLIC ACID

Skin Indications:

- Comedones
- Grades I & II Acne
- Oily Skin
- Rough Texture
- Post-Inflammatory Pigmentation
- Seborrheic Dermatitis

Contraindications:

- Allergy to Aspirin
- Pregnancy
- Lactation
- See Consent-Release Form for all others

EXIT

SALICYLIC ACID

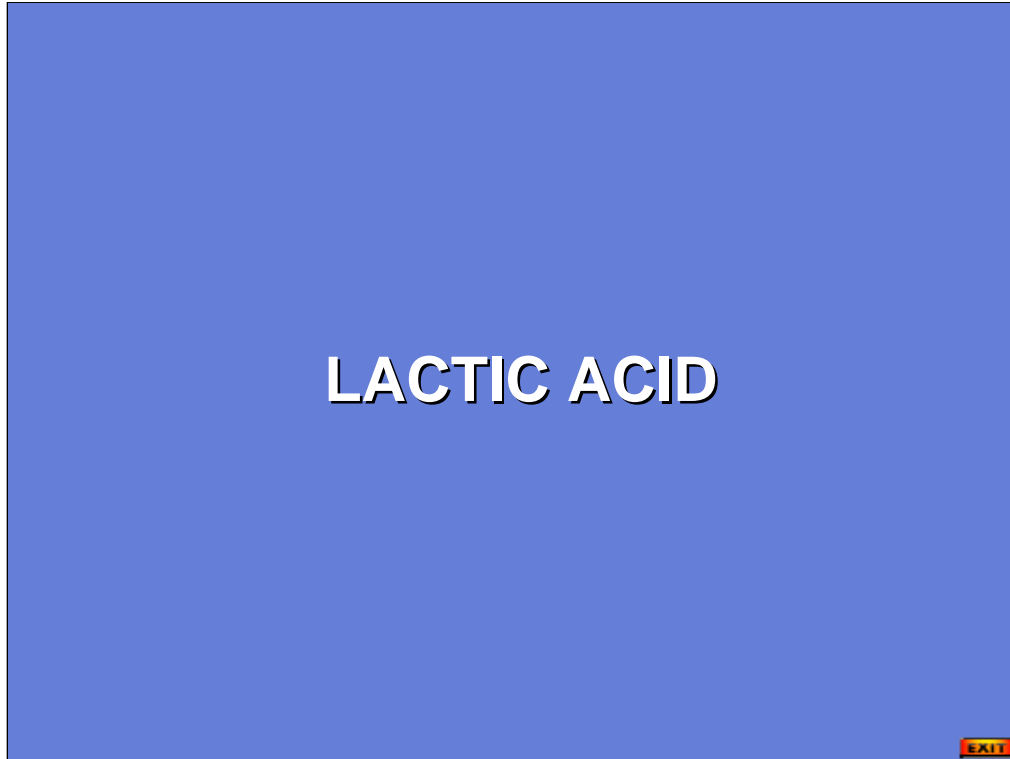
Skin Indications:

- Comedones
- Mild Acne
- Oily Skin
- Rough Texture
- Post-Inflammatory Pigmentation
- Seborrheic Dermatitis

Contraindications:

- Allergy to aspirin
- Pregnancy
- Lactation (or get dr release)

See "Consent-Release" form for all other contraindications. They are also listed in the "Rainforest Treatment Techniques" class.



LACTIC ACID

L+ LACTIC ACID

Multifunctional:

- Exfoliates Dead Skin Cells
- Inhibits Tyrosinase
- Moisturizes, Increases Hydration
- Increases Ceramide Levels
- Stimulates Cellular Regeneration
- Smooths, Refines, Brightens the Complexion

EXIT

LACTIC ACID

Lactic Acid is Multifunctional:

- Exfoliation removes dead skin cells and helps fade hyperpigmentation
- Lighten Skin- it inhibits tyrosinase, the enzyme responsible for melanin
- Moisturizes, it increases hydration in the skin
- Increase Ceramide Levels
- Stimulates cellular regeneration
- Smooth and refines the texture of the skin
- Brightens the complexion

Working With Chemical Peels

EXFOLIANT ACTION

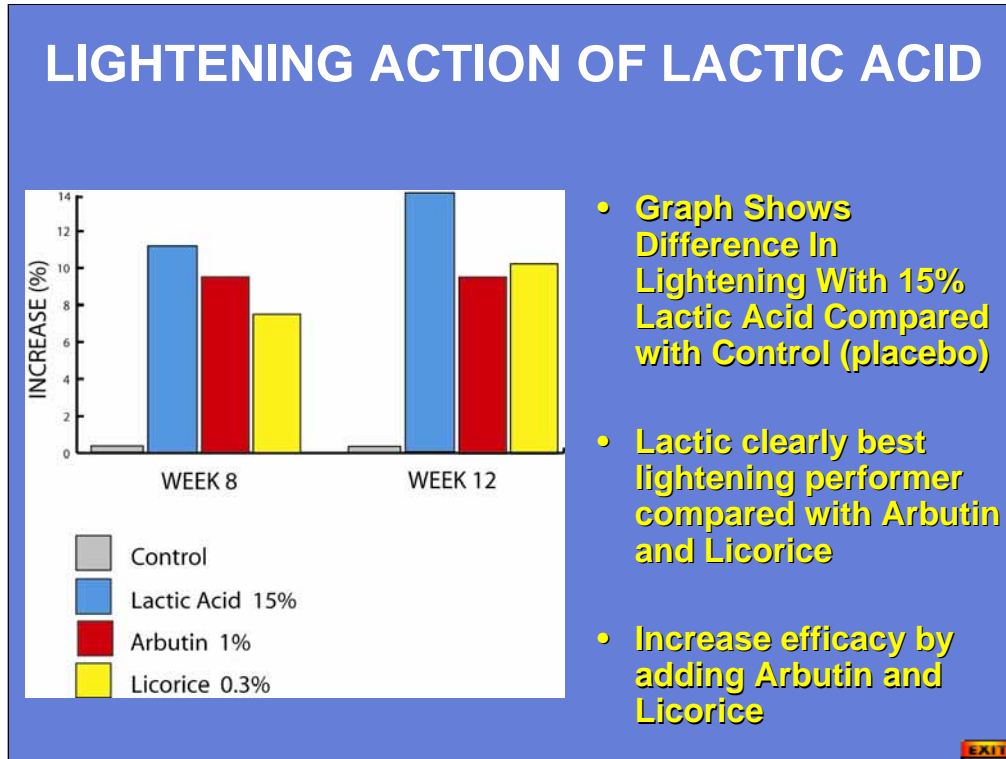
- Works at Very Base of Stratum Corneum
- Dissolves Lipids That Hold Dead Skin Cells Together
- Works On Upper Levels of Epidermis More Rapidly Than Glycolic
- Penetrates Slowly Into Deeper Layers
- With its Longer Reaction Time, Safer than Other Acids
- Better Control and Less Chance of Burning the Skin

EXIT

LACTIC ACID – EXFOLIANT ACTION

- Works at the base of the Stratum Corneum
- Dissolves lipids that hold dead skin cells together
- Works On the upper levels of the epidermis more rapidly than Glycolic
- Penetrates slowly into the deeper layers of the epidermis
- With its longer reaction time, it is safer than other acids
- Better control and less chance of burning the skin

Working With Chemical Peels



LIGHTENING ACTION OF LACTIC ACID

The graph shows the difference in the lightening action with 15% Lactic Acid compared with a control (placebo).

Lactic Acid is clearly the best lightening performer compared with other known tyrosinase inhibitors, Arbutin and Licorice.

You can increase the lightening efficacy by adding Arbutin and Licorice to Lactic Acid.

MOISTURIZING ACTION

- **L(+)** form of Lactic Acid is the Form Present in the Human Body (skin, hair, muscles)
- Every day the Human Body Produces About 120 Grams of Lactic Acid
- **Lactic Acid is also Part of NMF (Natural Moisturizing Factor), which Retains Moisture in the Skin**
 - **Skin is Approximately 30% Lactates & Its Salts**
- Possesses Ability to Increase Ceramide Levels by Stimulating Ceramide Biosynthesis

EXIT

MOISTURIZING ACTION OF LACTIC ACID

- L(+) form of Lactic Acid is the form present in the human body (skin, hair, muscles)
- Every day the human body produces about 120 grams of Lactic Acid.
- Lactic Acid is also part of NMF (Natural Moisturizing Factor) of the skin, which retains moisture in the skin
 - Skin is approximately 30% Lactates & its salts
- Lactic Acid possesses the ability to increase ceramide levels by stimulating Ceramide biosynthesis. Ceramides are naturally found in the skin's outer layer and help the skin retain moisture. When the skin's ceramide levels are low, the skin has difficulty retaining moisture.

Working With Chemical Peels

LACTIC ACID

Skin Indications:

- Hyper-Pigmentation
- Dry or Dehydrated Skin
- Sensitive Skin, Rosacea
- Rough Texture
- Fine Lines/Wrinkles
- Oily, Acne, Milia
- Dull, Asphyxiated Skin

Contraindications:

- Pregnancy
- Lactation
(Or have them ask physician)
- See Consent-Release Form for all others

EXIT

LACTIC ACID

Skin Indications:

- Hyper-Pigmentation
- Dry or Dehydrated Skin
- Sensitive Skin, Rosacea
- Rough Texture
- Fine Lines/Wrinkles
- Oily, Acne, Milia
- Dull, Asphyxiated Skin

Contraindications:

- Pregnancy
- Lactation (or get Dr. release)

See "Consent-Release" form for all other contraindications. They are also listed in the "Rainforest Treatment Techniques" class.

Working With Chemical Peels

RAINFOREST COLLECTION
Professional Treatment Peels



Next Class to Review:

***Rainforest
Treatment
Techniques***

EXIT

The Rainforest Collection

Unleash the regenerating power of the Rainforest
to reveal a more radiant complexion