Formulation of Natural Face and Body Scrubs

Abhilipsa Dash, Tiyasa Guha, Purvi Patawri

Department of Biotechnology
Vellore Institute of Technology, Vellore, Tamil Nadu, India

Abstract: Facial scrubs are an essential part of a skin care routine.

What is a facial scrub? A facial scrub is usually a cream-based product that contains little exfoliating pieces that when massaged across the skin help smooth the skin by physically lifting off dry, dead skin cells. They’ve been around for many, many years and while the formulas have changed a bit, they are still a necessity in your skin care routine.

Many people like to use face scrubs as part of their daily skin care routines. Historically, we haven’t been big fans of the majority of scrubs for one significant reason:

- Most of them are way too harsh and abrasive for skin.
- Any scrub that contains large, irregularly-shaped particles damages skin by causing micro-tears in its surface.
- Common culprits include ground-up shells, fruit pits, or volcanic rock.
- Micro-tears gradually weaken skin’s barrier, making skin more prone to dry, flaky patches, redness, and signs of sensitivity.

With daily use, if you’re zealously scrubbing with these ingredients, skin loses its ability to restore itself and look healthy.

Keywords: skin care, dead skin cells, Micro-tears

Index Terms: Component, formatting, style, styling, insert

I. INTRODUCTION

Scrubs have mineral oils, synthetics (abrasive beads made of plastic) or chemicals that can be harmful if your skin is sensitive. Face-washing habits can lead to big skin problems, like excessive dryness or oiliness -- and worse, some can even induce breakouts. Sulfate-filled washes destroy your skin barrier by stripping away all its moisture and leaving it dry and compromised. It is more acceptable to believe that natural remedies are more reliable than synthetic products. Of the two kinds of exfoliation—physical and chemical—physical scrubbing is usually the more satisfying. Skincare products that contain physical exfoliants, such as granules and beads, make an instant difference in your skin.

After using a facial scrub, skin feels and looks noticeably smoother, softer, and more even. Maintaining a healthy skin barrier is vitally important to the condition of your skin. Overuse of a physical exfoliant can do more harm than good. If you're over scrubbing your skin, you're likely to develop these symptoms:

- Shininess that's unrelated to oiliness
- A tight, sometimes tingly feeling
- Skin sensitivities and redness
- Burning and stinging sensations, even upon contact with water alone
- Dryness or a general feeling of dehydration
- Flakiness
- Other major issues associated with facial scrubs containing beads is — SCRUB TYPHUS, SKIN ACNE, ROSACEA, PSORIASIS

II. MATERIALS AND METHODS

NATURAL METHODS TO PREPARE SCRUBS

Naturally made scrubs such as:

- Honey-orange scrub
- Banana scrub

Using protein beads instead of plastic beads

Naturally made face wash:

- Coconut Oil & Honey Sensitive Skin Face Wash
- Honey & Lemon Oily Skin Face Wash
• Oatmeal-Infused Combo Skin Face Wash
Using natural and healthy ingredients for all skin types

1) Honey-Orange Scrub
   Ingredients:
   i. Orange Zest (finely grated orange peel)
   ii. Almond Grated(3-4)
   iii. Two tea spoons of honey
   iv. Almond Oil(3-4 drops)

2) Banana and Honey Face Pack
   Ingredients:
   i. Tea spoon olive oil
   ii. banana fresh
   iii. Smash and add ground sugar.
   iv. For hydration and moisture add one tablespoon of honey.
   v. Gently massage this mildly fragrant pulp on your face for five minutes cool water.

3) Coconut Oil and Honey Sensitive Face Wash
   Ingredients:
   i. 3 tablespoons coconut oil
   ii. 1 tablespoon grape-seed oil (or you can also use light olive oil)
   iii. 1 tablespoon of boiled water
   iv. 1 ½ teaspoons of runny honey
   v. A fresh pink grapefruit (you can also use a white grapefruit)
   vi. 10 drops of essential frangipani oil

4) Oatmeal masks
   Instant oatmeal acne mask
   Ingredients:
   i. Oatmeal
   ii. Hot water

   Apple-Oatmeal Exfoliating Mask (All Skin Types)
   Ingredients
   i. 2 tablespoons oatmeal
   ii. 1 tablespoon honey
   iii. 2 tablespoons applesauce
   iv. Rosewater

   Oatmeal Facial Mask (Acne-prone skin)
   Ingredients
   i. 2 tablespoons oatmeal
   ii. 1 teaspoon baking soda
   iii. Water (just enough to make a paste)

III. PREPARATION

Honey-Orange Scrub
Take 3-4 almonds and finely grate them with the help of a grater. With the same grater grate orange peel. Pick a full orange and grate it finely. One orange will give enough zest. Now make honey and almond oil mixture and add the other two ingredients. Now gently mix them and apply it to your face with clean fingers. Massage gently in circular motion. Relax for 15-20 minutes. Wash it away with warm water and pat your face dry and follow it up with your favourite moisturizer.

Advantages of orange and honey
Orange peel is extremely helpful in preventing acne and clears the skin from all the unwanted marks and blemishes. It is a rich source of Vitamin C that adds to extra glow of facial skin. A brilliant way of keeping your skin free of blackheads is to use orange peel
mask. Honey as you all know is rich in antioxidants and helps clarifying complexion and is extremely moisturizing and soothing. Almonds are natural exfoliator and helps in removing dirt from the skin.

### Advantages of honey and banana

Honey locks in the moisture. Banana and olive oil contain good amount of antioxidants which help in removing and neutralizing the bad effects of chemicals on skin. Olive oil also helps regulate your skin’s sebum production. This pack will give you very relaxing, soothing and moisturizing effect on your skin.

Long and languid days of summer give way to frigid and drying winter. Our skin goes through a lot in summer with tanning and sun damage. Winter is equally harsh with dry winds leading to stretched and dry skin. Hence winters are a time to regroup from that skin damage and also prepare for the harshness of winter on our skin. This pack will moisturize the skin and reduce the aging effects of the winter. It provides vitamin E and makes the skin glow with health.

#### Coconut Oil and Honey Sensitive Face Wash

- Into a small bowl add coconut oil, whip until creamy with a whisk then add in the grape seed oil and continue to whip.
- Boil your kettle, and in a separate bowl, mix together your honey and the water until honey is dissolved.
- Combine honey mix with the oils and whisk.
- Finely grate some grapefruit zest – add as desired (approximately ½ a teaspoon).
- Add 2-3 teaspoons of (squeezed) grapefruit juice into the mix and continue to whisk.
- Add 5 drops of essential frangipani oil for that beautiful spa aroma
- Pour into a small pots or jars with lid to keep.

### Advantages of coconut and honey

Coconut oil is most popular for its hydrating properties. It is suitable for all skin types and good for dry skin, dry patches and wounds, say experts. Experts tell different ways to use coconut oil for beauty regime. Most of the moisturizers available in the market are water or petroleum based, coconut oil, on the other hand, is completely natural and a much better moisturizer for the skin. Coconut oil fights redness and irritation so it reduces acne while leaving your skin conditioned from within. The mask will help to clear acne and keep skin soft and glowing.

### Instant oatmeal acne mask

- Cook one serving of oatmeal.
- Allow to cool (you can also use it slightly warm, but never hot).
- Apply to the affected areas.
- Leave on for 10-15 minutes. Rinse with cool water.

You actually can use instant oatmeal for this mask if you’d like—just make sure it doesn’t have any flavoring and other additives. (If you’re not sure, get plain oats). Cooked oatmeal is good for treating inflammation and skin redness. You can also use colloidal oatmeal (oatmeal ground to fine flour). Oatmeal flakes are better for homemade exfoliating scrubs.

### Apple-Oatmeal Exfoliating Mask

- Mix 2 tablespoons applesauce (you can also cut, peel and core a ½ medium sized apple and puree in a food processor),
- 1-tablespoon honey
- 2 tablespoons oatmeal together, with a few drops of rose water
- Leave on for 10-15 minutes.
- Rinse with tepid water.

### Oatmeal Facial Mask

- Grind two tablespoons of oatmeal in a blender or food processor.
- Add one teaspoon of baking soda to the oatmeal with enough water to make a paste. Apply the oatmeal paste onto clean, dry face.
- Leave on for 10 minutes. Rinse with cool water.

### About the ingredients

- Honey is a great humectant, to hydrate the skin and lock in moisture, and also has anti-bacterial properties.
- Lemon is an astringent and is great for skin brightening and diminishing dark marks from acne and skin discolorations.
- Rose water has anti-inflammatory properties, soothes irritated skin and is good for sensitive skin.
IV. STATISTICS AND DATA TO SUPPORT PRODUCT REQUIREMENT

Statistics collected from Google form responses from over 50 individuals to understand the market.

**Which one do you buy often?**

- Soap: 0
- Face Wash: 28
- Scrub: 12
- Lotion: 4

**Do you check ingredients?**

- Yes: 86%
- No: 12%
- Maybe: 2%

**What attracts you to the product?**

- Ingredient: 30
- Therapeutic applications: 20
- Color: 10
- Fragrance: 5

%
V. CONCLUSION

After intense research and finding we were able to figure out methods to cure skin issues faced whilst using artificial chemical-based scrubs. Many skin diseases were the outcome of chemically based scrubs such as other major issues associated with facial scrubs containing beads is – SCRUB TYPHUS, SKIN ACNE, ROSACEA, and PSORIASIS. Hence to make these scrubs more skin friendly we used natural protein beads for exfoliating the skin using walnut, almond, honey, banana, coconut. The main advantage of this was that the scrubs were suited for all types of skin and could help reduce acne and produce a glow after regular use.

After carefully experimenting with various scrubs our group noted the following as alternatives for scrubs and face masks –
• HONEY ORANGE SCRUB
• BANANA HONEY SCRUB
• COCONUT OILS AND HONEY SENSITIVE FACE WASH
• OAT MEAL FACE MASK
• APPLE OATMEAL FACE MASK

Now each of these have their own advantages which were later noted down for the benefit of understanding natural scrubs and face-washes better. After manufacturing the product carefully and supplying it to our friends to try we noted down the issues and the advantages of our items. Many said they felt a change within a few days followed by a natural glow. They even mentioned that they didn’t feel the skin dry up or tighten up after use and felt comfortable. Hence after a positive feedback we sent out Google forms throughout the college to understand the needs and requirement of the general public. Natural ingredients like jojoba beads, oatmeal, silica, and rice bran can be incredibly gentle and effective. But even then, it comes down to the overall formula, including how fine the scrub particles are, whether they’re formulated to dissolve during use to avoid overdoing it, and whether the formula also contains hydrating and soothing ingredients.

VI. ACKNOWLEDGEMENTS

We would like to express my special thanks of gratitude to our teacher Prof. Danie Kingsley Sir as who gave us the golden opportunity to do this wonderful project, which also helped us in doing a lot of Research and expanded our knowledge on the various processes of Bio-business.

REFERENCES: