



REVIEW ON MODERN DAY HAIR PROBLEM AND IT'S SOLUTION

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Abstract:

Hair related concerns are chief complaint by patient in modern world. By examining the latest scientific studies, emerging trends, and the most recent advancements in hair care, this review aims to provide a comprehensive overview of the topic. Furthermore, it seeks to identify gaps in the existing literature and highlight areas where further research is needed. While the review aims to discuss a broad range of hair problems and their causes, it is not an complete analysis of every hair-related issue. The focus will primarily be on common modern day hair problems, such as hair loss, dandruff, hair damage, premature graying, and hair thinning. The purpose of this literature review is to present a valuable resource for individuals seeking information on modern day hair problems, as well as for healthcare professionals and researchers working in this field.

Keywords: Modern day, hair problems, hair, hair loss, hair damage

Introduction:

In modern day many people suffered with multiple Hair problem. Hair being crucial part of the human body is also important in ones identity and culture. This review will address hair problems related to modern life style alopecia, hair thinning, premature graying, dryness frizz loss of hair, texture and shine, brittleness, hair fall and dandruff etc. The etiology of all these problems/condition related to hair can be more or less due our modern day lifestyle which includes smoking pollution UVB and UVA from sunlight, hair styling, chemical containing

hair products such as dyes, straightening creams, nutrition/lack of nutrients lack of good hair care, self medication and so on. ^{1,2,3,}

The quest for solutions has given rise to a diverse array of hair care products and treatments designed to tackle these specific concerns. Whether it's the formulation of innovative shampoos, conditioners, or targeted scalp treatments, the beauty and personal care industry has responded to the growing demand for effective solutions tailored to the unique challenges of today. This exploration of modern-day hair problems seeks into various aspects, ranging from the impact of lifestyle choices on hair health to the role of advanced hair care products in reducing specific issues. By examining the complexity of modern challenges, individuals can make informed decisions about their hair care routines, adopt preventive measures, and explore products that satisfy the requirements of their hair in the 21st century.

The significance of addressing modern day hair problems is multifaceted and encompasses not only cosmetic concerns but also broader health and psychological implications. Hair problems, such as hair loss, dandruff, premature graying, and hair thinning, can impact an individual's self-esteem, body image, and overall quality of life. These issues are not confined to a specific age group, gender, or culture; they affect a wide and diverse population. Understanding and addressing modern day hair problems is of paramount importance to promote well-being, self-confidence, and a comprehensive approach to health.

Understanding Modern Day Hair Problems

Modern day hair problems includes a diverse range of issues that affect the health and appearance of hair. These problems are not confined to a specific age group, gender, or ethnicity but are experienced by individuals across the spectrum. To gain a collective understanding of the challenges faced, it is essential to explore the following types of modern day hair problems:

Hair Loss:

Definition: Hair loss, or alopecia, refers to the reduction in hair density and coverage, leading to thinning or baldness in specific areas.

Causes: Hair loss can result from a variety of factors, including genetics (hereditary hair loss), hormonal imbalances, medical conditions, certain medications, and lifestyle choices.

Prevalence: Hair loss is a prevalent concern among both men and women and can have a significant impact on self-esteem and body image. ^{1,2,4,8}

Dandruff and Scalp Conditions:

Definition: Dandruff is characterized by the presence of flaky, itchy skin on the scalp, often accompanied by redness and irritation. Scalp conditions can range from mild dandruff to more severe issues like seborrhea dermatitis.

Causes: The causes of dandruff and scalp conditions can include factors such as an overgrowth of a yeast-like fungus, dry skin, sensitivity to hair care products, or skin disorders.

Prevalence: Dandruff is a common issue affecting a large portion of the population, and it can lead to discomfort and embarrassment.^{2,3,6,7}

Hair Damage:

Definition: Hair damage involves the weakening and deterioration of hair strands, making them more susceptible to breakage, split ends, and frizz.

Causes: Hair damage is often a result of exposure to environmental stressors, including UV radiation, pollution, heat styling, chemical treatments, and improper hair care practices.

Prevalence: Hair damage is a widespread concern, particularly in urban environments, and can affect the overall quality and appearance of hair.^{2,5}

Premature Graying:

Definition: Premature graying is the early onset of gray or white hair before the typical age at which natural graying occurs.

Causes: Genetic factors, oxidative stress, nutritional deficiencies, and certain medical conditions can contribute to premature graying.

Prevalence: Premature graying can affect individuals of all ages, and it is often associated with issues related to self-esteem and perceptions of aging.

Hair Thinning:

Definition: Hair thinning is characterized by a decrease in hair density and the overall thickness of individual hair strands.

Causes: Similar to hair loss, hair thinning can result from genetic factors, hormonal imbalances, age-related changes, and lifestyle choices.

Prevalence: Hair thinning is a common issue that can lead to reduced hair volume and concerns about hair fullness.

Causes of Modern Day Hair Problems

Modern day hair problems can be attributed to a complex interplay of factors, ranging from genetic predispositions to environmental influences and lifestyle choices. Understanding the underlying causes is essential for effective prevention and treatment. Below, we seek into the causes of each type of modern day hair problem, along with their subcategories:

Hair Loss:

Hereditary Hair Loss: A significant cause of hair loss is hereditary or genetic factors, commonly known as androgenic alopecia. It is often inherited from parents and leads to the gradual thinning of hair.

Hormonal Imbalances: Hormonal fluctuations, such as those occurring during pregnancy, menopause, or due to medical conditions like poly-cystic ovary syndrome (PCOS), can contribute to hair loss.

Medical Conditions: Certain illnesses, like thyroid disorders and autoimmune diseases, can cause hair loss as a secondary symptom.

Medications: Some medications, including chemotherapy drugs and anticoagulants, may have hair loss as a side effect. ^{1,2,4,8}

Dandruff and Scalp Conditions:

Yeast Overgrowth: Dandruff is often linked to an overgrowth of a yeast-like fungus called *Malassezia* on the scalp.

Dry Skin: Dry scalp can result from a lack of moisture and natural oils, leading to flakiness and itching.

Sensitivity to Haircare Products: Allergic reactions or irritations caused by haircare products, such as shampoos and conditioners, can trigger scalp conditions.

Skin Disorders: Conditions like psoriasis and seborrheic dermatitis can lead to chronic scalp issues. ^{2,3,6,10}

Hair Damage:

Environmental Stressors: Exposure to environmental factors, including UV radiation, pollution, and harsh weather conditions, can weaken hair and cause damage.

Heat Styling: Frequent use of hairdryers, straighteners, and curling irons can lead to heat damage and make hair more vulnerable to breakage.

Chemical Treatments: Chemical processes like hair coloring, perming, and relaxing can cause damage to the hair structure.

Improper Haircare Practices: Using haircare products that contain harsh chemicals, over washing, and vigorous brushing can contribute to hair damage. ^{2,5,11}

Premature Graying:

Genetic Factors: A family history of premature graying can be a key factor.

Oxidative Stress: Exposure to oxidative stress, often due to a lack of antioxidants in the diet, can contribute to premature graying.

Nutritional Deficiencies: Deficiencies in certain vitamins and minerals, particularly vitamin B12 and copper, may lead to premature graying.

Medical Conditions: Conditions such as vitiligo and alopecia areata can sometimes cause premature graying.

Hair Thinning:

Genetic: A family history of hair thinning or hair loss can increase the risk.

Hormonal Imbalances: Hormonal changes, such as imbalances in thyroid hormones or sex hormones, can lead to hair thinning.

Age-Related Changes: Aging is a natural cause of hair thinning as the hair follicles become less active with age.

Solutions for Modern Day Hair Problems

Healthy Diet:

Hair health is closely linked to nutrition. Include foods rich in vitamins and minerals such as iron, zinc, and vitamin E. Protein is essential for hair growth, so consume adequate amounts of lean meats, fish, eggs, and plant-based protein sources like beans and nuts. ^{12,14,15, 16}

Hydration:

Water is vital for overall health, including hair health. Dehydration can lead to dry, brittle hair, so ensure you drink enough water throughout the day.

Regular Exercise:

Exercise improves blood circulation, delivering nutrients and oxygen to hair follicles. Aim for regular physical activity to maintain a healthy scalp and hair.

Stress Management:

Chronic stress can contribute to hair problems, including hair loss. Practice stress reduction techniques such as meditation, yoga, or deep breathing exercises to maintain overall well-being.

Gentle Hair Care Practices:

Avoid excessive heat styling, as it can damage the hair cuticle. Choose hairstyles that don't pull too tightly on the hair, and use a wide-tooth comb to detangle wet hair gently.

Proper Washing and Conditioning:

Use a sulfate-free shampoo that suits one's hair type and follow up with a conditioner. Washing too frequently can strip the scalp of natural oils, leading to dryness, while inadequate washing can result in product buildup.
2,9,13

Avoiding Excessive Product Use:

Harsh chemicals in styling products can damage the hair. Consider using natural or organic products and avoid excessive use of styling products to reduce the risk of damage.

Scalp Massage:

Regular scalp massages stimulate blood flow, promoting hair growth. Use fingertips to massage the scalp gently in circular motions to improve circulation.

Supplements:

Consult a healthcare professional before taking supplements. Biotin, vitamins (especially A, C, and D), and omega-3 fatty acids are commonly associated with improved hair health. However, individual needs vary, and excessive supplementation can have adverse effects.

Professional Advice:

If one is experiencing persistent hair problems, seek advice from a dermatologist or trichologist. They can assess scalp and hair condition, provide a diagnosis, and recommend personalized treatments.

Protective Hairstyles:

Consider hairstyles that protect the hair from environmental damage and reduce stress on the hair shaft. Braids, twists, or buns can be protective styles that minimize breakage.

Trimming:

Regular trims prevent split ends and breakage, promoting healthier-looking hair. Aim to trim hair every few months, or as needed, to maintain its overall condition.

We need to remember that individual responses to these methods may vary, and it's essential to be patient and consistent in efforts to see positive changes in hair health.

Understanding the multifaceted causes of modern day hair problems and their subcategories is essential for developing effective strategies for prevention and treatment. By addressing the specific factors contributing to each type of hair problem, individuals and healthcare professionals can make informed decisions about how to best manage and mitigate these issues.

Trending Marketed Products Used To Treat Modern Day Hair Problems

There are various products available in the market designed to address modern-day hair problems. The effectiveness of these products can depend on individual hair types and specific concerns as we discussed above. Here are some common types of products and ingredients used to treat various hair problems:

S no.	Type of products
1.	Shampoos
2.	Conditioners
3.	Hair Masks
4.	Leave in conditioners
5.	Serums
6.	Oils
7.	Heat protectants
8.	Protein treatments
9.	Personalized treatment

Table no.1 Trending hair-care products

Shampoos:

Use sulfate-free shampoos that suit one's hair type and address specific concerns (e.g., moisturizing, volumizing, anti-dandruff). Look for shampoos with ingredients like keratin, biotin, and vitamins for added nourishment.^{2,3,9}

Conditioners:

Choose conditioners that match one's hair type and concerns. Deep conditioning treatments with ingredients like argan oil, shea butter, or coconut oil can provide extra hydration and repair damaged hair.¹³

Hair Masks:

Weekly or monthly use of hair masks can deeply nourish and repair hair. Ingredients like protein, keratin, and natural oils are often found in effective hair masks.^{17,18}

Leave-In Conditioners:

Leave-in conditioners provide ongoing hydration and protection. They can be especially beneficial for those with dry or damaged hair. Look for products containing ingredients like aloe vera, panthenol, or silk proteins.¹³

Serums and Oils:

Lightweight serums or hair oils can add shine, reduce frizz, and nourish the hair. Argan oil, jojoba oil, and coconut oil are popular choices for promoting hair health.^{15,16}

Heat Protectants:

If one uses heat styling tools, they should apply a heat protectant before styling to minimize damage. Look for products containing silicones, which create a protective barrier against heat.

Protein Treatments:

Protein treatments can strengthen and repair damaged hair. Ingredients like hydrolyzed keratin, collagen, or wheat protein are often included in these products.

Prescription Treatments:

In some cases, prescription treatments may be recommended for specific hair and scalp conditions. Consult with a healthcare professional or dermatologist for personalized advice.

It's essential to read product labels, understand one's hair type and concerns, and perform patch tests if one has sensitive skin or allergies. Additionally, rotating products or adjusting hair care routine based on seasonal

changes can also contribute to maintaining healthy hair. If have persistent or severe hair problems, seeking professional advice is recommended.

Conclusion:

At last, his review sheds light on the intricate challenges faced by individuals in maintaining healthy and vibrant hair in the 21st century. The comprehensive exploration of common issues such as hair loss, dandruff, hair damage, premature graying, and hair thinning provides valuable insights into the multifaceted causes behind these concerns.

The causes of modern day hair problems are diverse, encompassing genetic predispositions, hormonal imbalances, environmental stressors, and lifestyle choices. The quest for solutions has favored the development of a numerous of hair care products and treatments, ranging from innovative shampoos to targeted scalp treatments, designed to address specific issues arising from contemporary living.

Recognizing the significance of addressing modern day hair problems goes beyond cosmetic concerns. The psychological and broader health implications highlight the importance of a holistic approach to well-being. Tackling these challenges involves understanding the causes, adopting preventive measures, and exploring effective solutions tailored to individual needs.

The review emphasizes the role of a healthy lifestyle, including a nutritious diet, hydration, regular exercise, and stress management, as foundational elements in promoting overall hair health. Additionally, the importance of proper hair care practices, gentle styling, and adopting preventive measures is underscored.

Furthermore, the review delves into the trending marketed products used to treat modern day hair problems, offering insights into the plethora of options available in the beauty and personal care industry. From sulfate-free shampoos to nourishing hair masks and prescription treatments, individuals can make informed choices based on their specific concerns and preferences.

In conclusion, the literature review serves as a valuable resource for individuals seeking knowledge on modern day hair problems, as well as healthcare professionals and researchers in the field. By addressing the gaps in existing literature and presenting a comprehensive overview, the review contributes to the on going dialogue on maintaining healthy and strong hair in the dynamic landscape of contemporary living.

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