

Alopecia

PROBLEM

Loss of hair. Hair growth has three phases: anagen (the active growth phase), catagen (hair is no longer growing and the hair follicle moves closer to the surface of the skin), and telogen (the resting phase). Scalp hair is in the anagen growth phase for two to six years. Approximately 85%–90% of scalp hairs are in the anagen phase at any one time (Nail & Lee-Lin, 2010). Because the scalp has the highest percentage of hair in the anagen phase, the effects of systemic therapy on hair loss will occur in scalp hair sooner than other places on the body.

ASSESSMENT CRITERIA

1. What is the cancer diagnosis and treatment?
 - a. Hair loss (alopecia) is a transient but often psychologically devastating consequence of cancer chemotherapy. It is the hallmark sign that someone has cancer. For some patients, the emotional trauma may be so severe that it leads to discontinuing or refusing treatment.
 - b. Many cancer treatments work by targeting rapidly growing cancer cells. This action is responsible for most cancer treatment side effects. Hair follicles are among the many fast-growing healthy cells in the body.
 - c. Certain chemotherapy drugs and radiation therapy attack rapidly dividing cells in the body, including hair cells. This can result in hair loss by either of two mechanisms: thinning of the hair shaft at the time of maximal chemotherapy effect, and as a result the hair may break at the follicular orifice (upper portion); or if matrix is severely inhibited, the hair may separate at the bulb (lower portion) and shed (Payne, 2011).
2. What medications is the patient taking? Obtain drug history. Chronic use of other drugs, such as steroids, also causes thinning of hair.

HOME CARE INSTRUCTIONS

When Will Hair Loss Occur?

Chemotherapy

The ability of individual agents to cause hair loss depends upon the route, dose, and schedule of drug administration.

ALOPECIA

- High-dose, intermittent, IV chemotherapy regimens are associated with a high incidence of complete alopecia.
- Low-dose therapy, oral administration, and weekly regimens are less likely to induce total or complete alopecia (Payne, 2011).

The scalp may hurt at first, and then the patient may lose his or her hair, either a little at a time or in clumps. It takes about one week for all of the hair to fall out (National Cancer Institute, 2007).

It may take from three to six months after therapy is completed for hair to begin to regrow, or it may start growing back while the patient is still receiving chemotherapy. The “new” hair may have a slightly different color, texture, or curl (Cleveland Clinic Foundation, 2005).

Radiation Therapy

Radiation therapy uses high-energy radiation to kill cancer cells by damaging their DNA. Radiation can damage normal cells as well as cancer cells. A patient may receive radiation therapy before, during, or after surgery. Some patients may receive radiation therapy alone, without surgery or other treatments. Some patients may receive radiation therapy and chemotherapy at the same time. The timing of radiation therapy depends on the type of cancer being treated and the goal of treatment (cure or palliation). Radiation may be delivered by a machine outside the body (external beam), or it may come from radioactive material placed in the body near cancer cells (brachytherapy). Radiation side effects are caused by damage to rapidly dividing normal cells in the area being treated. These effects include skin irritation or damage at regions exposed to the radiation beams. An example would be hair loss when the head or neck area is treated.

Tips When Anticipating or During Hair Loss

(National Cancer Institute, 2007)

- Visit a hair stylist prior to treatment. Hair loss often is better managed by cutting the hair short prior to treatment.
- If you shave your head, use an electric shaver rather than a razor to prevent cutting the scalp.
- Shop for a wig in advance of hair loss. It is best to shop for a wig before hair is lost in order to match hair color, style, and texture. It is important to have some sort of head covering to protect the skin from sun and wind.
- Use a sunscreen on exposed scalp or cover completely to protect skin from the sun’s harmful rays.
- Sleep on a soft, satiny pillowcase or try wearing a soft scarf or turban to minimize friction.
- Treat hair gently. Keep hair clean by shampooing with a gentle, pH-balanced shampoo. Avoid vigorous toweling and blow-drying any remaining hair.
- Use a soft-bristle brush or a wide-toothed comb.
- Avoid hair treatments such as bleaching, permanent waves, hair dye, and hair-spray that can cause dry or brittle hair.

ALOPECIA

- Try not to braid hair or put in a ponytail.
- It may help to join a support group to talk with others whose hair has fallen out during cancer treatment.

Report the Following Problems

- If your scalp becomes irritated
- If you experience prolonged sun exposure
- If scalp area is red, itchy, or swollen

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