

HAIR APPARENT

The most common hair changes associated with ageing are undoubtedly greying, male pattern balding and excessive hair in females. However, these three conditions are not always just age-related and are often seen quite early in life, says ASSOCIATE PROFESSOR GREG GOODMAN.

GREYING

At fifty years of age, over 50 per cent of people have 50 per cent greying of bodily hair, and higher percentages have some greying of scalp hair. Greying occurs when the natural hair colour simply stops being produced. This happens after a phase of the body gradually winds down the enzyme responsible for its production.

Melanocytes, those cells responsible for colour in the skin, are also the cells responsible for giving colour to the hair. Eventually melanocytes are lost from hair completely. Moustache and beard hairs usually succumb before the scalp. On the scalp the temples usually are first to grey, followed by spread to the crown and finally the back of the scalp. Interestingly, in contrast to what happens with balding where the hairs become thinner and thinner, greying hairs actually become thicker.

Greying is usually dictated by your family tree, but in some people there are other factors that may contribute to an earlier slide into a salt and pepper appearance. Premature greying is occasionally seen in ageing syndromes, where other aspects of ageing are also seen and in association with some diseases. A fascinating aspect of premature greying is the person who literally goes grey overnight. Historically this has many examples with

Sir Thomas Moore and Marie Antoinette both greying overnight on the night preceding their respective executions. In this stress-induced syndrome, the hair is mistakenly attacked by the immune system and the more colour the hair has the more it is attacked, selectively leaving the white hairs behind.

Greying is forever and there is nothing that medical treatment has to offer. Hair dyes have been used for many centuries and are now a much safer and more aesthetically pleasing option than they have been in the past. Hair dyeing is a very common, effective and regular remedy for many people who do not like their hair grey.

BALDING

Common balding is so ubiquitous in Caucasians that it is almost universal. In this condition the hair is miniaturised from the strong, thick, terminal hair to become the thin, vellus hair like that of the body. It is no great solace to those who are balding that they share this trait with the orangutan, the chimpanzee and the stump-tailed macaque. After puberty the straight hairline gives way to a receding one in 95 per cent of males and almost 80 per cent of females. This minor recession is so common that it is considered normal and is not thought to predict those who will go on to further balding.

Over 50 per cent of men develop a bald "Friar Tuck" crown which increases in extent till the age of 70. This balding occurs in 25 per cent of normal females as well but does not progress as it does in older males. If a female develops severe hair loss it takes the form of a more generalised thinning rather than the typical male pattern baldness.

The inheritance of balding is definite but complex; it is known to depend on male hormones in both sexes. As males obviously have more male hormones they develop this trait earlier and more severely than females.

Castration in males is a universally successful yet fairly unpopular method for preventing baldness from occurring. There is no current cure for balding, however, there are some treatments which are useful.

On the medical side the rise of minoxidil has been useful. This drug is put on as a lotion and its use has come about (as do many of medicine's best advances) from accident and observation. Its use as a blood pressure lowering agent was followed by many reports of increased hair forming in female patients as a side effect of the drug. This led to its current use as a topical agent. It is probably at its best in females and in early balding in males. It is very unconvincing as an agent for advanced male baldness. In this late stage it produces only a slight and non-cosmetically useful increase in hair. However, it probably is more useful in decreasing hair loss by slowing the shrinking of the hair diameter that occurs in male pattern balding. This drug must be a drug company's dream product as it takes many months to work out whether it's doing anything at all, up to two years before the full effect is noted and once used successfully needs to be used forever or the hard-earned gains are reversed. It is also reasonably expensive at approximately \$100 per month as an indefinite expense. It is usually applied as a two to five percent lotion twice daily.

Retin-A (amongst its many other uses) is also helpful if applied before the minoxidil. It may increase the penetration of the minoxidil and has been suggested to have its own role in hair growth.

There are other medications such as anti male hormone tablets, which are obviously at their best in females, and finasteride and similar tablets that block the male hormone from doing its nastiest work on the hair follicle. These are very useful in selected patients

but are a long-term commitment. There is no area of medicine so coveted and controlled by rogues and charlatans than the hair industry. Various companies, providing little else except glorified hair pieces, prey on the misunderstanding and fear of people regarding the balding process. Other companies sell a plethora of hair products with outlandish and false claims and provide us with the twentieth century equivalent of the snake oil remedies of bygone years. The marketing strategy of these piranhas would appear to me to centre on increasing the fear of people with normal early and slight recession of hair at the temples who are often in the impressionable teens or early twenties. They then convince them to buy expensive products they don't need to prevent losing hair they probably wouldn't have lost anyway.

Hair transplantation does offer a permanent solution to male pattern balding. In the past this modality has been deficient, with many people ending up looking more like a broom than a person with a natural hairline. Multiple factors were responsible for this but virtually all have been rectified and today's hair transplantation is a far cry from what preceded it.

TOO MUCH HAIR

Hirsutism, or increased facial and body hair, has many causes and is, for obvious reasons, usually a female complaint only. It is, without doubt, dependent on many racial and genetic factors.

With a multicultural society, as we find in Australia, it is inevitable that comparisons and expectations of normality are made by people of some racial groups that are not justifiable regarding hair distribution and extent. It is most unlikely that people of Mediterranean descent would have similar body hair to North American Indians or Japanese. It is very difficult for women to work out what is normal hairiness when they are bombarded by quite abnormal

role models stressing that only the hairless can wear clothes or cosmetics elegantly or be normal and healthy.

Excess hair does also tend to increase gradually with age. Hairs may start to appear on the chin or on the sides of the face. Hair removal and disguising techniques such as epilation, electrolysis, depilation, shaving, waxing, IPL, laser and bleaching all have their uses.

Medical treatments over the last few years have also proved very helpful with the rise of the anti-male hormone tablets which are aimed at blocking the hormones that act on the hair follicles.

The most potent of these substances are cyproterone acetate (Androcur) and spironolactone (Aldactone). Overseas, Cyproterone is often incorporated in low dose in oral contraceptives and this is now being made available in Australia. Usually these drugs require female hormones to stabilise the cycle and must be used for some months before their effects are appreciated.

Aldactone is a fluid tablet that has been noticed to have undesirable, feminising side effects in males when used long-term. This action is, however, quite desirable in females with hirsutism and is used in similar circumstances to cyproterone, except it sometimes may be used without other hormones. Certainly these drugs are a boon to dermatological treatment of this difficult problem.

With either agent, treatment is long-term so patience and a good memory of what you were like at the beginning of therapy are important. Usually the hair will be seen to require waxing or shaving at less frequent intervals and will start to look less thick at a later date, certainly after many months of treatment. How long treatment should go on for if successful is as yet an unanswered question. **PB**

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