Experts in Skin&Hair

Hair Loss Investigations

Are blood tests necessary to investigate hair loss?

It does depend on the condition, but blood tests are very helpful in the investigation of hair shedding, where hair comes out excessively. They are sometimes required in pattern thinning, scarring conditions and alopecia. There is a separate information leaflet on the particular blood tests and when they are useful.

What is a hair pull test?

A hair pull test is when a group of hairs are grouped together and gently pulled to see how easily they come out and what type of hairs they are. This may be simply putting one's fingers through the scalp, squeezing the fingers together and then pulling the fingers up and away from the scalp. In alopecia, a small group of hairs may be pulled from the edge of the patch to see how easily they come away – a sign of active Alopecia. In scarring conditions, a hair pull is often taken from the edge to see if "growing" hairs can be detected – again a sign of active disease.

What is Trichoscopy & Videotrichoscopy?

Trichoscopy is the term used to describe imaging the hairs with a magnifying device with polarizing lights. Most hand held devices have a magnification of 10x. In addition to a standard dermatoscope, we use either the Fotofinder Medicam Videotrichoscopy system or Tricholab studio, which starts with 20x magnification but for hair analysis we normally examine the hair at 40-70x, although the system is capable of magnifying up to 140x.

For hair thinning and shedding, videotrichoscopy usually follows a protocol of taking a series images from the top, side and back of the head. These images can be submitted electronically to Tricholab for manual analysis and a report produced that details hair fibre diameter, amount of normal thick terminal hairs and comparison with small/miniaturised vellus hairs, number of hairs per follicular unit, density and cumulative hair thickness. Some crude data is available at the time of the consultation but for accurate results some manual adjustments are required.

This is recommended as a baseline investigation before treatment and then repeated after 6-12 months to see if treatment is working. There is a small additional charge for images to be sent to Tricholab, but this is cheaper than the majority of blood tests and in our opinion worth it, if you really want an objective assessment of where you are at and whether treatment is working.

What is a trichogram, what does it involve and when is it useful?

A trichogram is an investigation to assess the percentage of hairs in each part of the growth cycle. If you are experiencing hair shedding, it is likely that hairs have left the growing part of the hair cycle (anagen) and entered the resting or shedding part (telogen). There are two ways this assessment or trichogram can be achieved.

One can have a forced pluck. A group of hairs is grasped tightly with a pair of rubber tipped needle holders or similar clamped medical device. All the hairs within the sample are forcibly plucked. These hairs are then examined under a microscope where the different hairs can be identified. This is a standard trichogram.

How is a videotrichogram different?

A more modern way of achieving the same information without the pain is a videotrichogram. This involves an area of hair being shaved. This calculates the hairs that have grown over the 48 hours as compared to those that haven't which

gives you the anagen to telogen ratio. If you have very light hair you may need a black hair dye being applied to the area for 10 mins, which is then washed off. A videotrichogram can be very useful in terms of knowing how bad the problem is and of course this can be repeated to see if the situation is improving or not.

What is a scalp biopsy, what does it involve and when is it necessary?
A scalp biopsy is an investigation requiring a local anaesthetic to numb the skin and then at least two 4mm cores of tissue are removed for histological analysis under the microscope. The small defect is sutured together from side to side to leave a small 4mm straight line scar.

These biopsies are processed in different ways to give maximal information.
We use a leading UK histopathology service which specialises in hair for all our biopsies. The report details the total number and type of hairs. However, the main reason these are usually done is to look for inflammation and to see at what level that is occurring. In scarring conditions, the body attacks hairs half way up the hair follicle and one can normally see the scar tissue or fibrosis around the hairs. In alopecia areata, the body attacks hair at the bottom or bulb of the hair follicle.

The type of inflammation and location give key diagnostic information, which can then lead to differing therapeutic options.

There is a specific patient information leaflet on punch biopsies.