

TAKING A FAMILY HISTORY

Collection of family history information^{1,2} in a genetics context can best be done by drawing a family tree or pedigree. This provides a clear and permanent record of the relationships between individuals, and information collated can be readily identified at a glance.

For the family history to be credible and useful as a basis for advising on risk and surveillance, it is important to verify as many diagnoses of cancer as possible. This is usually performed on referral to a clinical genetic service or the familial bowel cancer registry.

At the initial consultation, it may not be possible to ascertain much information. Often individuals need to go back and speak to their parents or other relatives about the family's history. This makes the family tree dynamic – that is, new information may become known over time.

Be aware that in some cultures, inter-family adoption is common, but you may be told about those relatives as if they were natural offspring.

Always take at least basic details about both sides of a family as this may impact on risk and therefore on surveillance advice.

Date the pedigree and each subsequent change made.

METHOD

When taking a pedigree, use the following symbols:



Male



Female



Gender unknown



No offspring

Different cancers are shown by shading different quadrants in the square or circle representing the individual.

Bowel cancer (top left quadrant)  

Uterine cancer (bottom right quadrant) 

Bowel and Uterine cancer 

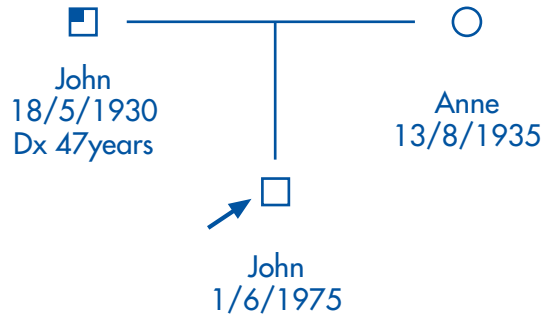
Begin the family history with the person who is consulting you (ie, the proband). Indicate this person with an arrow.



John

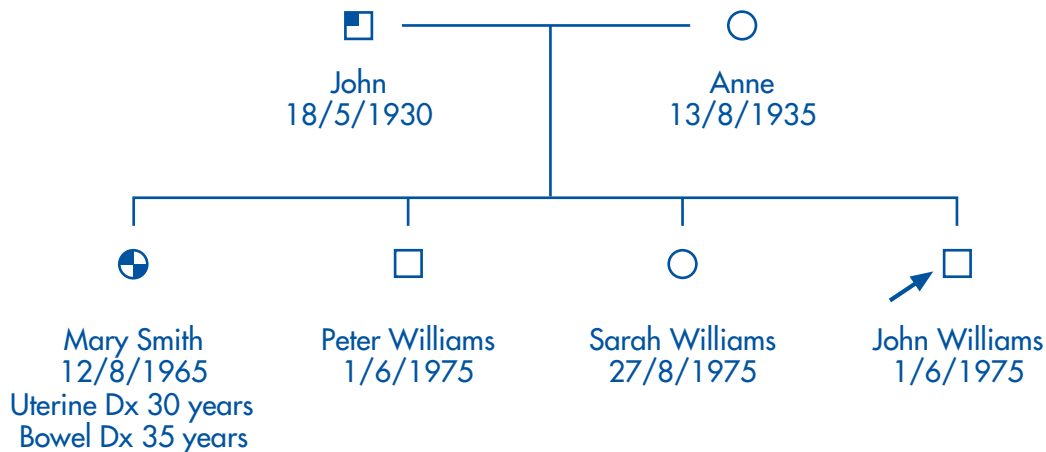
It does not matter whether you extend the pedigree horizontally or vertically first. It is more important to be methodical and establish the family relationships accurately.

Draw in the parents of the proband.



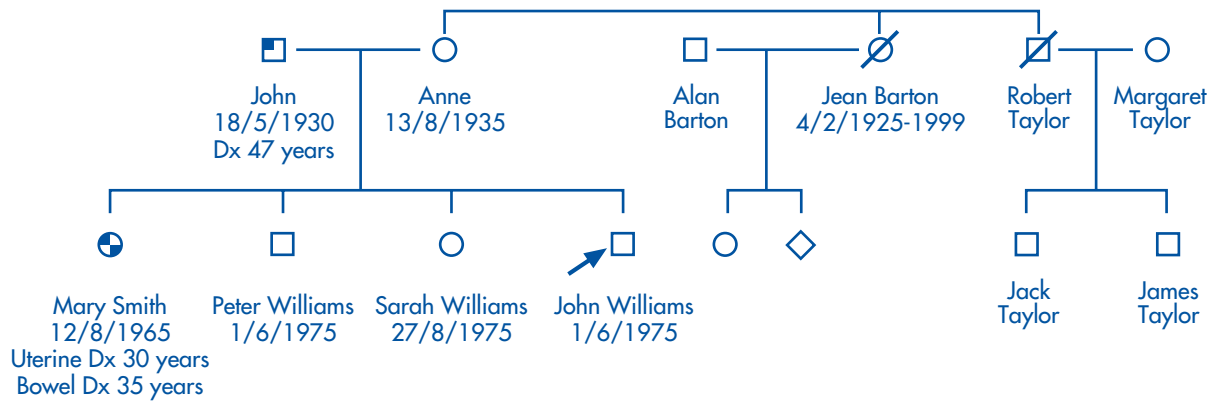
Enquire how many offspring the parents had and, when clarifying sibling relationships, consider asking about half-siblings.

At this point, start collecting information about each person and annotate his or her name and dates of birth (preferably, but record age if not available) and death alongside the appropriate symbol. Ask about a diagnosis of cancer. If the person had cancer, ask at what age the diagnosis was made. Start a key and colour in the symbol. You may need to annotate two cancers for one person (eg, uterine and bowel); in such cases, allocate different quadrants for each cancer. It is important to be consistent throughout the pedigree so that, for example, all bowel cancers are recorded in the upper left quadrant.

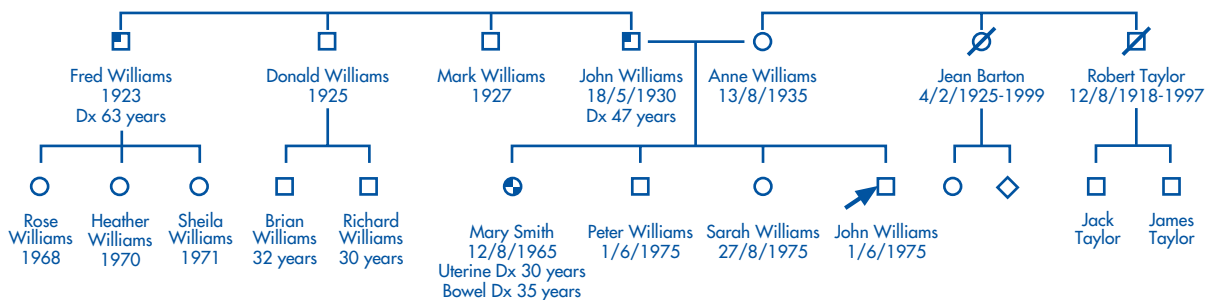


Extend the pedigree into the previous generation.

- How many brothers and sisters did your mother have?
- Did any of them have cancer?
- If so, what type?
- At what age were they diagnosed?



Now explore the other side of the family, asking about the number of paternal brothers and sisters, how many children each one had, and whether any had cancer. Continue as before, annotating names, age at diagnosis, and so on. You may wish to ask about polyps (number, size, type) seen at colonoscopy. Age at diagnosis remains important as an adenoma at 65 years is of less significance than one at 22 years.



This process can then be repeated for each of the proband's grandparents. Again, ask about their siblings, their offspring and causes and ages at death. This completes a three-generation family tree. Asking about children, nieces and nephews of the proband would complete a four-generation family tree.

SUMMARY

To accurately define the risk and give the best advice, it is important to consider: the number of family members with cancer; the number of generations involved and the relationships between those with cancer (ie, first- or second-degree relationships); age at cancer diagnosis; histology of cancer; multiple primary cancers; number and type of polyps, and age at which they were documented.

References

1. Church JM, Williams BRG, Casey G. *Family History: The Key to Inherited Colorectal Cancer in Molecular Genetics and Colorectal Neoplasia: a primer for the clinician*. New York: Igaku-Shoin, 1996.
2. Harper PS. *Practical Genetic Counselling*. Oxford: Butterworth Heinemann, 1999.