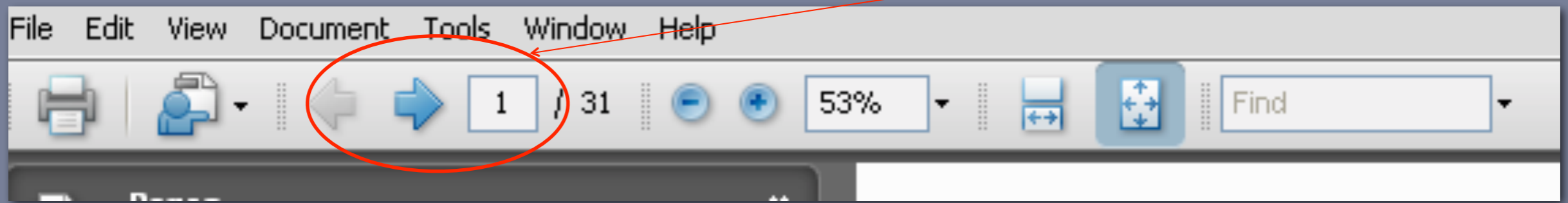


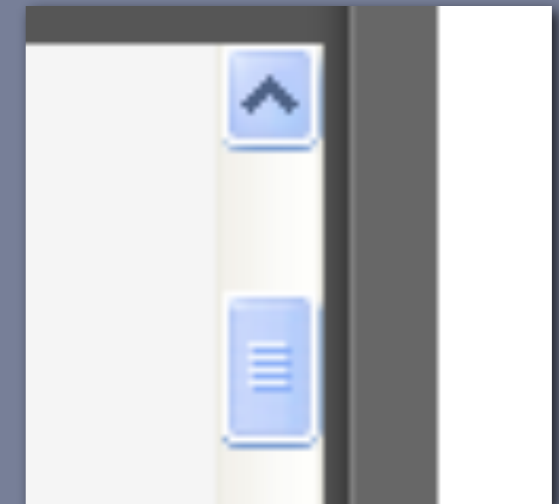
# Using this resource

There are three ways of viewing this PDF:

1. Using the arrows you can move through the pages.

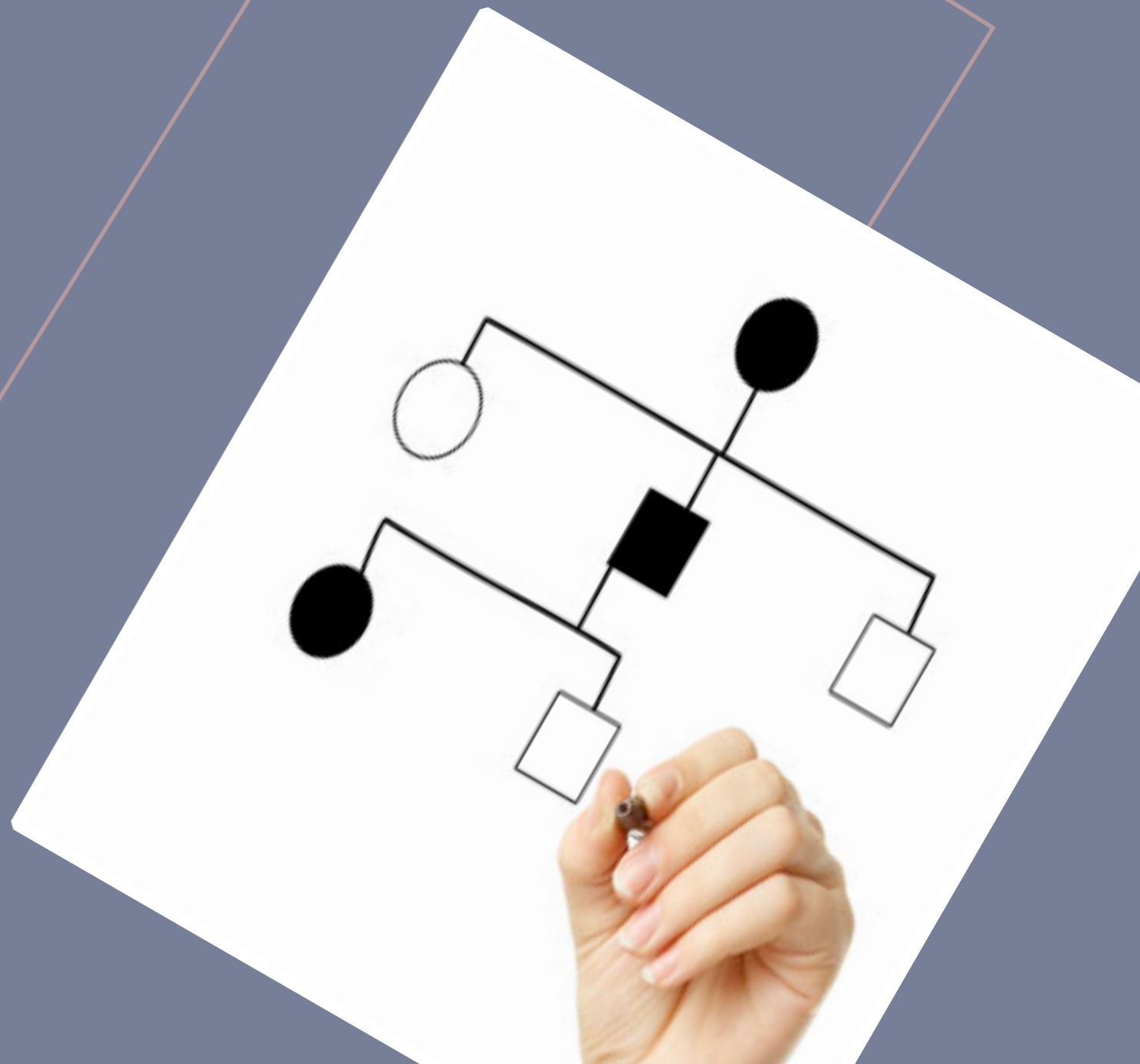


2. You can use the arrows, found on the right hand side of page, to scroll through the pages.



3. You can use your mouse scroll button/wheel to move through the pages of this resource.

# Family History Learning Resource





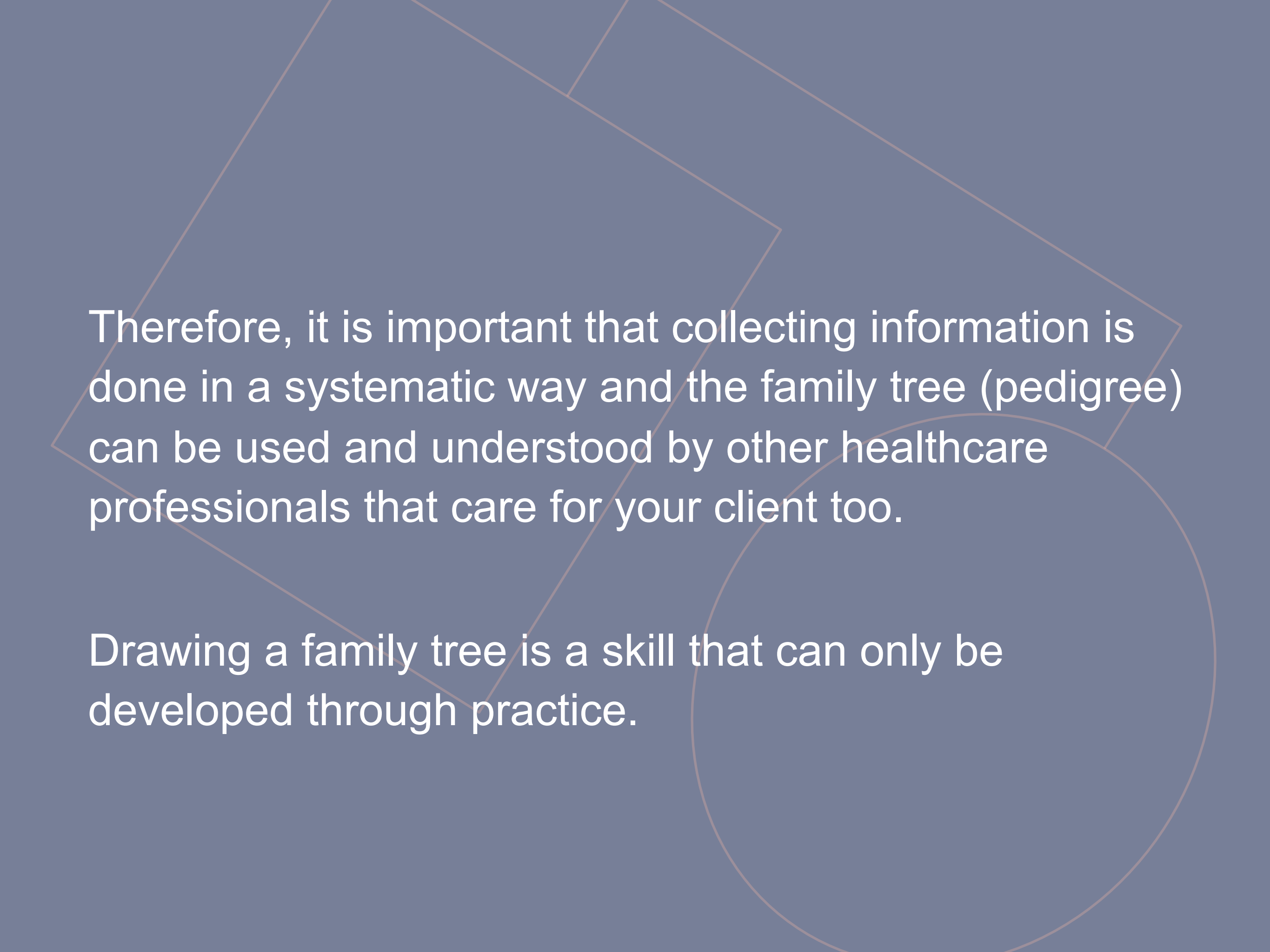
Collecting  
Family History Information

and

Creating a Family Tree

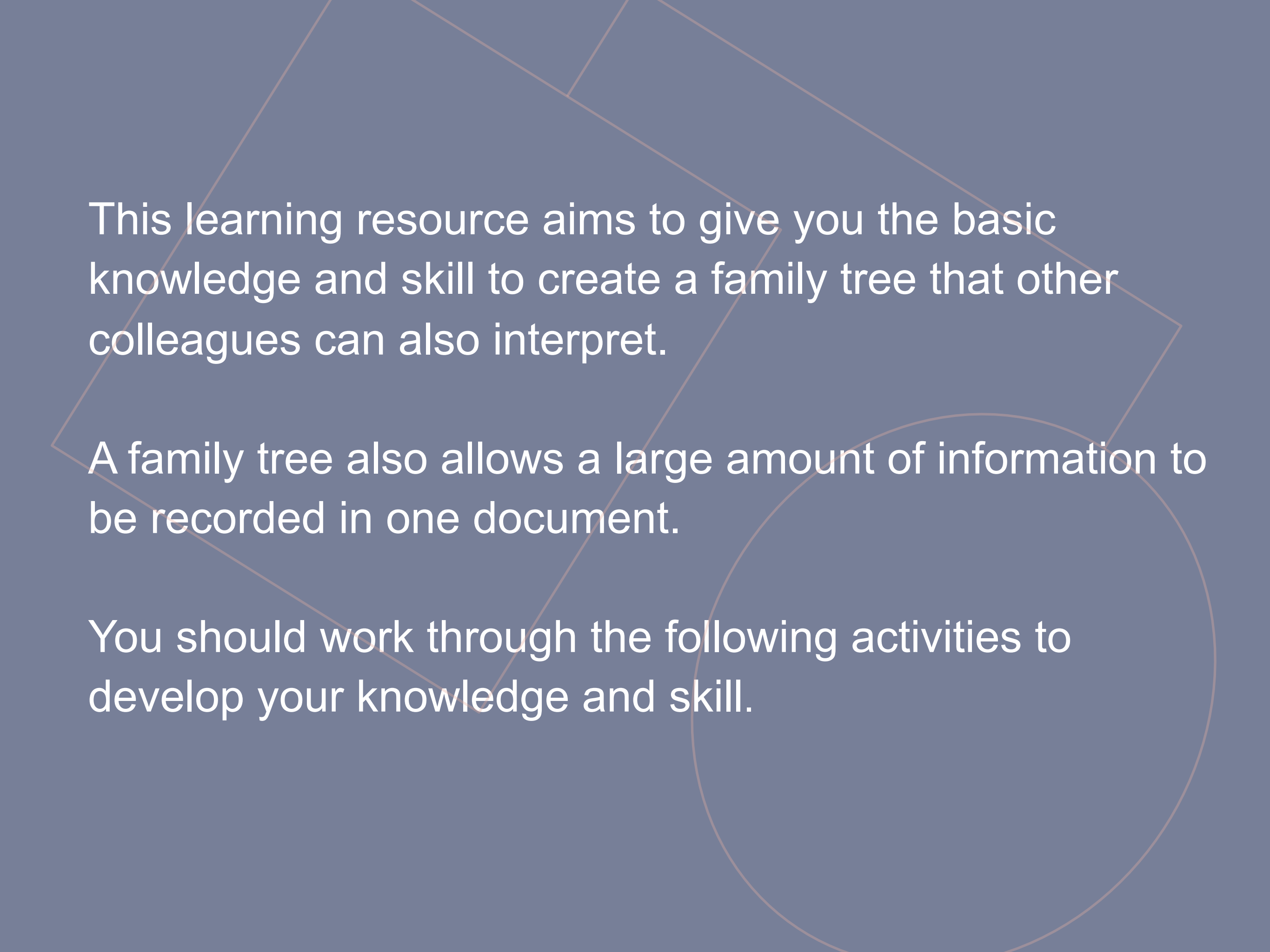
As a healthcare professional or a student studying to become a healthcare professional, it is extremely likely that you will discuss family history with many of your service users.

As more genetic changes for common conditions are identified, the requirement for family history information is certainly going to increase in the future.

The background features several overlapping geometric shapes in a light brown color. There is a large circle on the right side, a large triangle on the left side, and several smaller polygons and lines scattered across the blue background.

Therefore, it is important that collecting information is done in a systematic way and the family tree (pedigree) can be used and understood by other healthcare professionals that care for your client too.

Drawing a family tree is a skill that can only be developed through practice.



This learning resource aims to give you the basic knowledge and skill to create a family tree that other colleagues can also interpret.

A family tree also allows a large amount of information to be recorded in one document.

You should work through the following activities to develop your knowledge and skill.

# Menu



Activity 1 - Symbols



Activity 2 - Relationship Lines



Activity 3 - Using the Form



Activity 4 - Two Examples



Activity 5 - Two Scenarios



Activity 6 - Draw your own tree



Activity 7 - Practice with a friend

Click on LINKS logo to jump to any Activity or mouse click to move to next slide

# Activity 1

(5-10 mins.)



The symbols that follow are commonly used and accepted internationally. It is important that you use standardised symbols to enable the information to be interpreted by other health professionals.

This activity will help you visualise what the symbols mean.

Once you have a basic understanding of the symbols used, then you will join the symbols together in a meaningful way.

To do this we use

## Relationship Lines

(Activity 2)

Menu



BEGIN



# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, the symbols used to create a family tree (pedigree) will be introduced, with each slide.

Click on the NEXT button to see the first symbol or use the navigation buttons below.



With each click you will see an explanation appear in the yellow box below.

**Explanation text ...**

# Symbols to create a Family Tree

MALE	FEMALE	
<input type="checkbox"/>		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).



Click on the NEXT button to see the next symbol or set of symbols.



With each click you will see an explanation appear in the yellow box below.

**This symbol represents a male that is unaffected by a condition**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).





Click on the NEXT button to see the next symbol or set of symbols.



With each click you will see an explanation appear in the yellow box below.

**This symbol represents a female that is unaffected by a condition**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).







Click on the NEXT button to see the next symbol or set of symbols.



With each click you will see an explanation appear in the yellow box below.

**These male and female symbols represent individuals that are affected by a condition.**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).









Click on the NEXT button to see the next symbol or set of symbols.



With each click you will see an explanation appear in the yellow box below.

**These symbols represent individuals that are deceased. Notice the diagonal line that is drawn through the male and female symbols.**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).





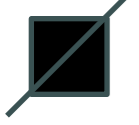





Click on the NEXT button to see the next symbol or set of symbols.



With each click you will see an explanation appear in the yellow box below.

**An arrow should be placed at the person from whom you are obtaining the family history information.**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).














Click on the NEXT button to see the next symbol or set of symbols



With each click you will see an explanation appear in the yellow box below.

**A dot within the symbol represents this person is known to have a genetic change.**

# Symbols to create a Family Tree

MALE	FEMALE		
		Unaffected Individual	
		Affected Individual	
		Deceased	
		Proband (person giving information)	
		Gene Carrier	
			Pregnancy – foetus: male, female or unknown gender
		Individuals with no children	
Others			
		Sex Unknown	
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).	

On the left, you will see the symbols used to create a family tree (pedigree).

Click on the NEXT button to see the next symbol or set of symbols



With each click you will see an explanation appear in the yellow box below.

**These symbols represent a pregnancy (unborn child) with the male (square), female (circle) and unknown sex (diamond).**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).

















Click on the NEXT button to see the next symbol or set of symbols.



With each click you will see an explanation appear in the yellow box below.

**One or two solid lines placed under relationship line of an individual with no children.**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).


















Click on the NEXT button to see the next symbol or set of symbols.



With each click you will see an explanation appear in the yellow box below.

**The diamond is used when the proband is aware a relative has children but does not know the sex. This symbol is also used for a pregnancy of unknown sex.**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

On the left, you will see the symbols used to create a family tree (pedigree).

Click on the NEXT button to see the next symbol or set of symbols.



With each click you will see an explanation appear in the yellow box below.

**This symbol represents a pregnancy loss either by miscarriage, stillbirth or elective abortion.**

# Symbols to create a Family Tree

MALE	FEMALE	
		Unaffected Individual
		Affected Individual
		Deceased
		Proband (person giving information)
		Gene Carrier
		Pregnancy – foetus: male, female or unknown gender
		Individuals with no children
Others		
		Sex Unknown
		Pregnancy Loss – (miscarriage, stillbirth or elective abortion).

This is the full list of symbols used to create a family tree (pedigree).

Click on the BACK button to repeat Activity One or click on the bottom arrow for the next slide.



**END  
OF  
ACTIVITY**

You should also view the presentation on Relationship Lines (Activity 2) to continue your learning on creating a Family Tree.



# Activity 2

(5-10 mins.)



The relationship lines that follow are commonly used and accepted internationally.

The presentation will help you visualise how the relationship lines join the symbols.

Menu



BEGIN



# Relationship Lines to create a Family Tree

item	description
	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended
	Second marriage/relationship
	Consanguinity (closely related partners)
	Adoption
	Sibling Relationship Line
	Non-identical Twins
	Identical Twins
	Number of Siblings of the same sex

On the left, you will see the relationship lines used to create a family tree (pedigree).

Click on the NEXT button to see the first lines or use the navigation buttons below.




With each click you will see an explanation appear in the yellow box below.

**Explanation text ....**



# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship

On the left, you will see the relationship lines used to create a family tree (pedigree).



Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**The line connecting the Male and the Female symbols represent a marriage or relationship.**

# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended

On the left, you will see the relationship lines used to create a family tree (pedigree).




Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**The two diagonal lines crossing the relationship line represent that the relationship has ended.**

# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended
	Second marriage/relationship

On the left, you will see the relationship lines used to create a family tree (pedigree).




Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**The set of symbols represent that one relationship has ended and another one is in place. This is important to show because there may be children from both relationships that need to be represented on the Family Tree.**

# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended
	Second marriage/relationship
	Consanguinity (closely related partners)

On the left, you will see the relationship lines used to create a family tree (pedigree).







Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**The double lines connecting the male and female in this set of symbols represent that these individuals in the relationship are closely related.**

# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended
	Second marriage/relationship
	Consanguinity (closely related partners)
 	Adoption

On the left, you will see the relationship lines used to create a family tree (pedigree).







Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**The brackets around the symbols represent that these individuals are or have been adopted. The solid line from above the relationship line means the individual has been adopted OUT of the family and the dashed lines mean the individual has been adopted INTO the family.**

# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended
	Second marriage/relationship
	Consanguinity (closely related partners)
	Adoption
	Sibling Relationship Line

On the left, you will see the relationship lines used to create a family tree (pedigree).








Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**These symbols and lines represent siblings and their relationship to the parents with a vertical line descending from the parents and a horizontal line connecting each other.**

# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended
	Second marriage/relationship
	Consanguinity (closely related partners)
	Adoption
	Sibling Relationship Line
	Non-identical Twins

On the left, you will see the relationship lines used to create a family tree (pedigree).









Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**This set of symbols have a diagonal line connecting them above indicating that they are twins instead of straight vertical lines above connecting them to the parental relationship line above.**

# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended
	Second marriage/relationship
	Consanguinity (closely related partners)
	Adoption
	Sibling Relationship Line
	Non-identical Twins
	Identical Twins

On the left, you will see the relationship lines used to create a family tree (pedigree).










Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**This set of symbols have a diagonal line connecting them above indicating that they are twins AND they have a horizontal line connecting them indicating they are IDENTICAL twins.**

# Relationship Lines to create a Family Tree

item	description
I    II    III	Generation number
	Marriage/Relationship
	Marriage/Relationship has ended
	Second marriage/relationship
	Consanguinity (closely related partners)
	Adoption
	Sibling Relationship Line
	Non-identical Twins
	Identical Twins
	Number of Siblings of the same sex

On the left, you will see the relationship lines used to create a family tree (pedigree).

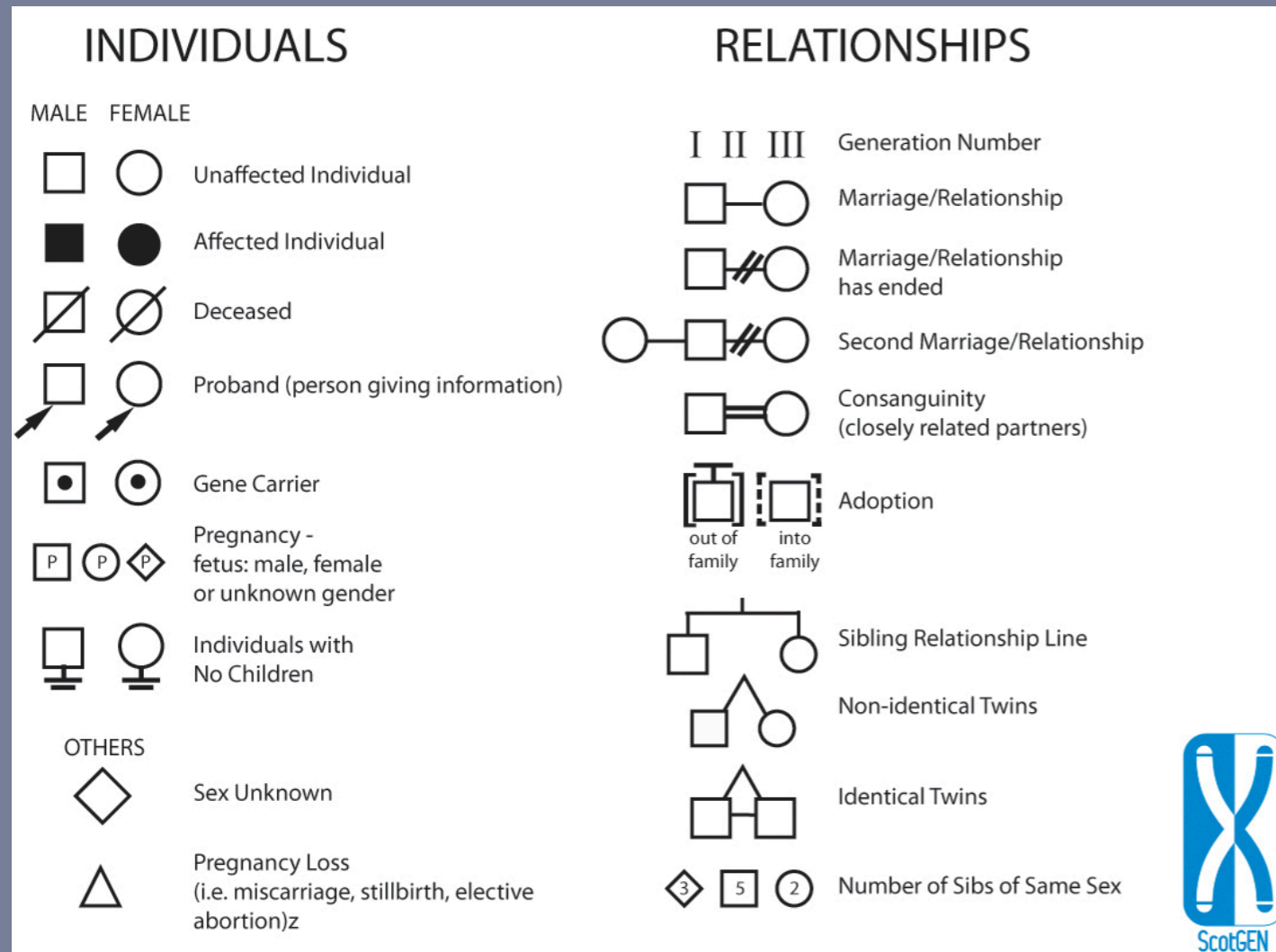
Click on the button to see the next set of lines.



With each click you will see an explanation appear in the yellow box below.

**These symbols have a number inside them indicating how many of that gender (or unknown gender) there are.**

This is the full list of Lines & Symbols used to create a family tree (pedigree).



Click on the BACK button to repeat Activity 2 or click on the bottom arrow for the next slide.



**END  
OF  
ACTIVITY**

You should also view the next presentation on Constructing a Family Tree (Activity 3) to continue your learning on creating a Family Tree.



# Activity 3

(10-15 mins.)



The next activity brings together all the elements and shows the construction of a family tree, step by step.

The following presentation will help you see how a family tree is constructed, along with the information that you are required to collect, on family members.

Menu



BEGIN



<p><b>KEY</b></p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p>	<p>Name .....</p> <p>Date .....</p>
<p style="text-align: center;"><b>Here you will learn how to take a family history and construct a family tree using the symbols and relationship lines you learnt in previous presentations.</b></p>	

Back

Next

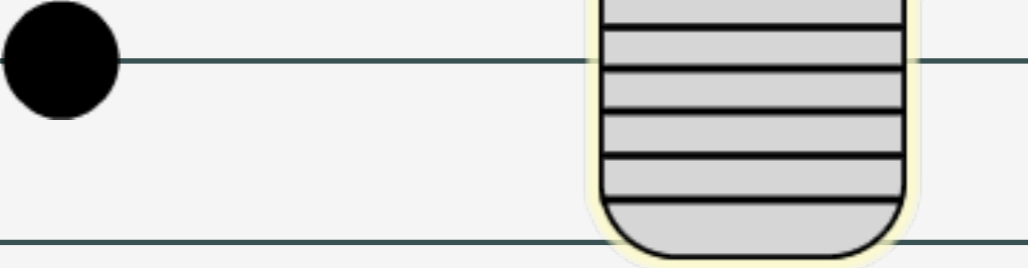


<p><b>KEY</b></p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p>	<p>Name ..... Date .....</p>
<p style="text-align: center;"><b>Example of form used to record Family History.</b></p>	

Back

Next



<p>KEY</p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p>	<p>Name .....</p> <p>Date .....</p>
<p>The form is available at the end of this resource.</p> <p>Using this form or plain paper draw the symbol for the person being seen.</p> <p>Start drawing half way down the page.</p> 	
<p>Signature of person recording family history</p> <p>.....</p>	

Back

Next




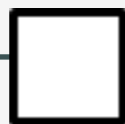


<p>KEY</p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p>	<p>Name .....</p> <p>Date .....</p>
<p>●      □      ○      ●</p>	
<p>Signature of person recording family history</p> <p>.....</p>	

**Ask the person giving the information (Consultand) do they have brothers or sisters. If yes, ask how many and organise the siblings in order of age – eldest far left of the page.**



KEY		Name	Date
<input type="checkbox"/>	.....	.....	.....
<input type="checkbox"/>	.....	.....	.....
<input type="checkbox"/>	.....	.....	.....

		Diagnosed	
		Age	
			
<b>Helen Doe</b>	<b>James Doe</b>	<b>Vera Smith</b>	<b>Jane Brown</b>
<b>14/5/1968</b>	<b>4/10/1970</b>	<b>27/3/1972</b>	<b>(Doe)</b>
<b>diagnosed</b>			<b>12/1/1975</b>
<b>age 30</b>			

Signature of person recording family history

.....




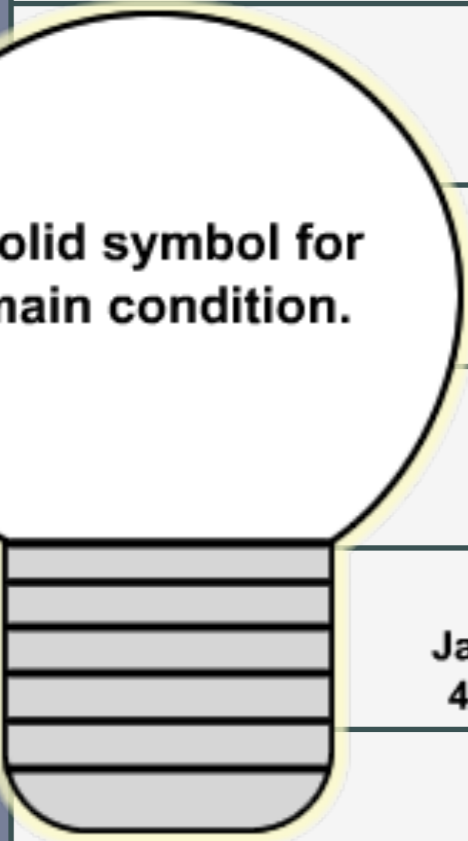

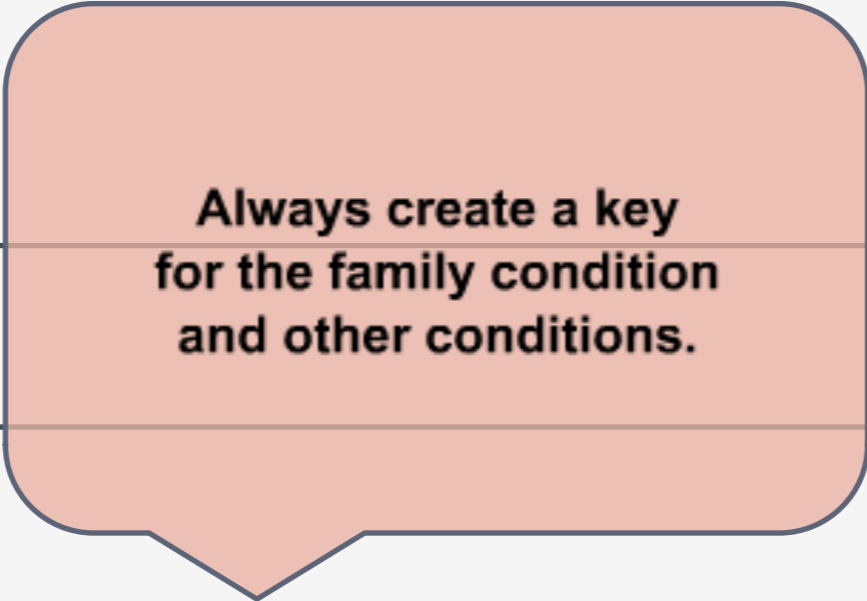

**Identify the Consultand using an arrow.**

**Add full information.**

**Record full information on each family member.**

- full name
- maiden or other names (if applicable) in brackets
- date of birth
- age at diagnosis (if applicable)

















<b>KEY</b> <b>CONDITION</b> .....  .....  ..... 	Name ..... Date .....	
 <p>Solid symbol for main condition.</p>		 <p>Always create a key for the family condition and other conditions.</p>
	 <p>Diagnosed Age 32</p> <p>James Doe 4/10/1970    Vera Smith 27/3/1972    Jane Brown (Doe) 12/1/1975</p>	
		Signature of person recording family history .....

Back

Next










<b>KEY</b> <b>CONDITION</b> .....  .....  ..... 	Name .....	Date .....	
<p><b>Add Name or Patient Label.</b></p> <p><b>Remember to date and sign family tree.</b></p>			
			<p>Diagnosed Age 32</p>
			
<b>Helen Doe</b> 14/5/1968 diagnosed age 30	<b>James Doe</b> 4/10/1970	<b>Vera Smith</b> 27/3/1972	<b>Jane Brown (Doe)</b> 12/1/1975
			Signature of person recording family history .....

<b>KEY</b> <b>CONDITION</b> .....  .....  ..... 	Name .....	Date .....		
<p style="text-align: center;"><b>You now need to add relationship lines.</b></p>				
				Diagnosed Age 32
Helen Doe 14/5/1968 diagnosed age 30	James Doe 4/10/1970	Vera Smith 27/3/1972	Jane Brown (Doe) 12/1/1975	
				Signature of person recording family history .....

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<b>KEY</b> <b>CONDITION</b>  .....  .....  .....	Name .....	Date .....		
<p><b>Before drawing relationship lines, you need to ask if all siblings have the same parents.</b></p>				
				Diagnosed Age 32
Helen Doe 14/5/1968 diagnosed age 30	James Doe 4/10/1970	Vera Smith 27/3/1972	Jane Brown (Doe) 12/1/1975	
				Signature of person recording family history .....

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<b>KEY</b> <b>CONDITION</b> .....  .....  ..... 	Name ..... Date .....		
<div style="border: 1px solid black; border-radius: 15px; background-color: #f4a460; padding: 10px; display: inline-block;"><b>Ask if there are any twins in the family.</b></div>			
			
<b>Helen Doe</b> 14/5/1968 diagnosed age 30	<b>James Doe</b> 4/10/1970	<b>Vera Smith</b> 27/3/1972	<b>Jane Brown (Doe)</b> 12/1/1975 Diagnosed Age 32
Signature of person recording family history .....			

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Next



KEY

CONDITION

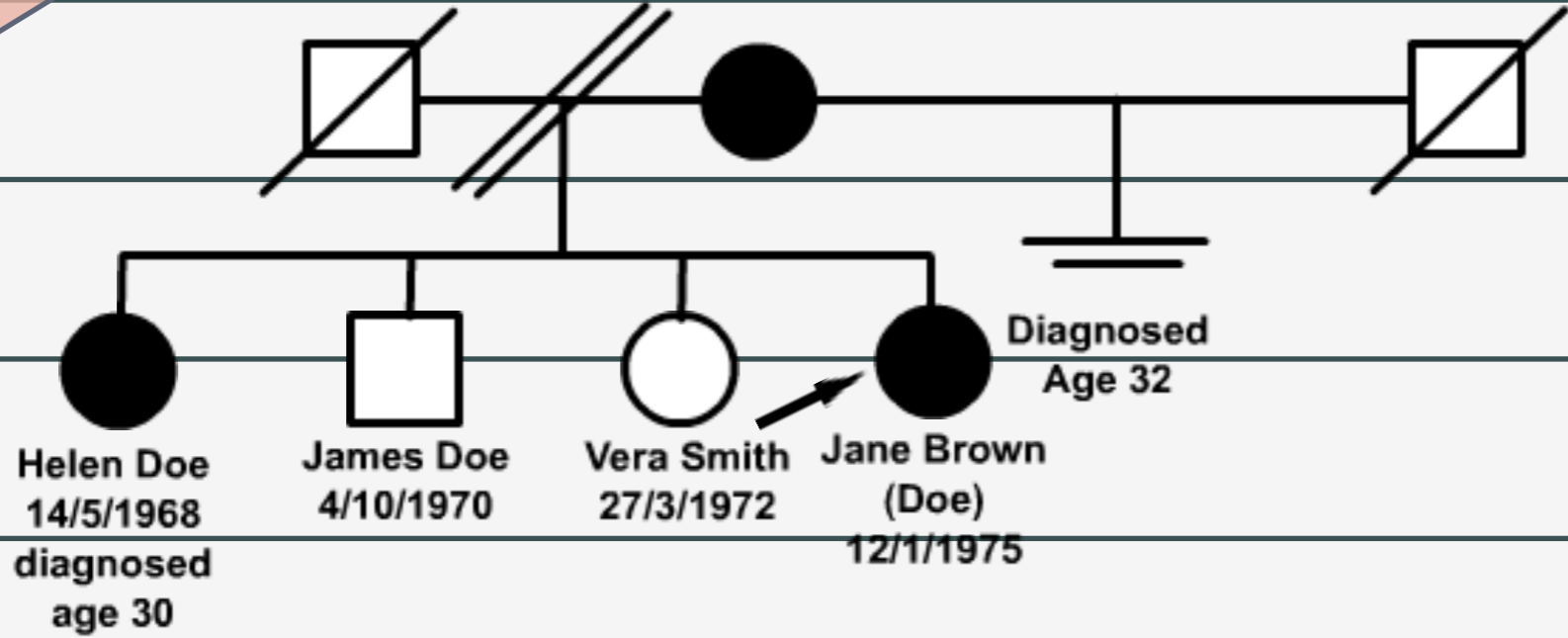


This example shows mother having 2 relationships. If there were children from that relationship they are 1/2 siblings.

Name .....

Date .....

When drawing a partnership, traditionally males are on the left and females on the right.





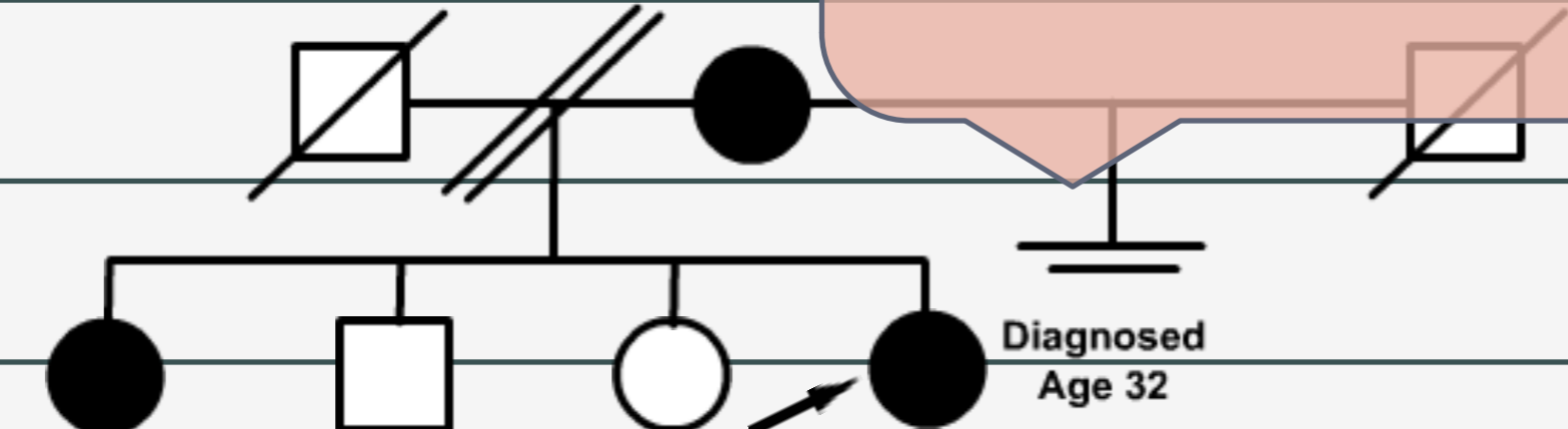


Signature of person recording family history

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<b>KEY</b> <b>CONDITION</b>  .....  ..... 	Name .....	Date .....	
<div data-bbox="1193 609 2063 1210" style="border: 1px solid black; border-radius: 15px; padding: 10px; background-color: #f0c0c0; display: inline-block;"><p><b>If too many siblings or aunts and uncles for 1 page, use arrow to show there is more information on reverse of page.</b></p></div> 			
			
<b>Helen Doe</b> 14/5/1968 diagnosed age 30	<b>James Doe</b> 4/10/1970	<b>Vera Smith</b> 27/3/1972	<b>Jane Brown (Doe)</b> 12/1/1975 Diagnosed Age 32
			Signature of person recording family history .....

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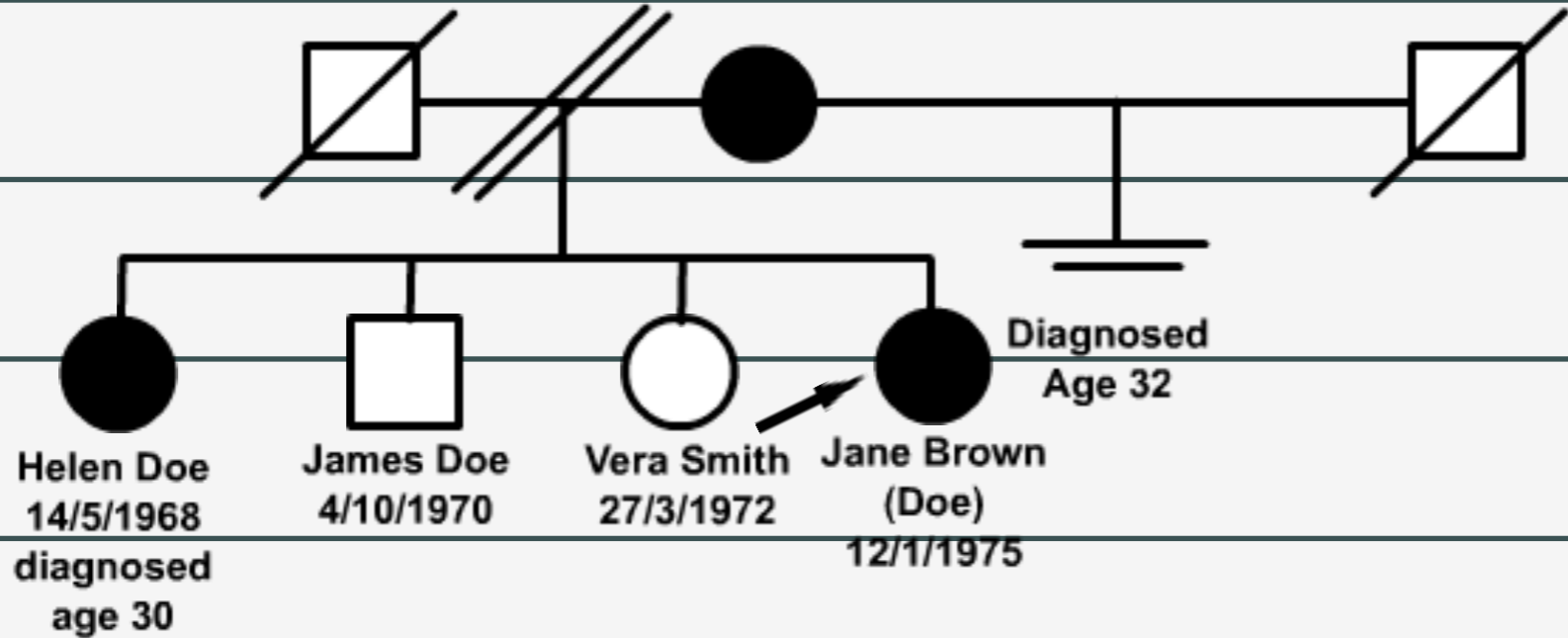
KEY

CONDITION

Name

Date

You now should add aunts and uncles of the consultand.



Signature of person recording family history

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Next



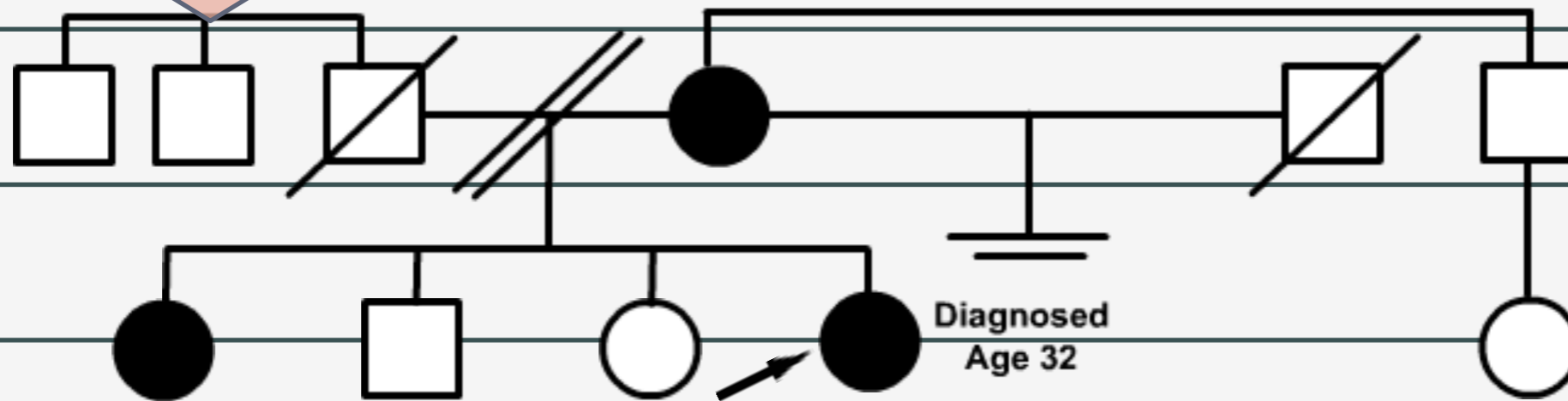
KEY

CONDITION

Name

Date

Ask if they have aunts and uncles on maternal and paternal side of family.



Helen Doe  
14/5/1968  
diagnosed  
age 30

James Doe  
4/10/1970

Vera Smith  
27/3/1972

Jane Brown  
(Doe)  
12/1/1975

Diagnosed  
Age 32

Signature of person recording family history

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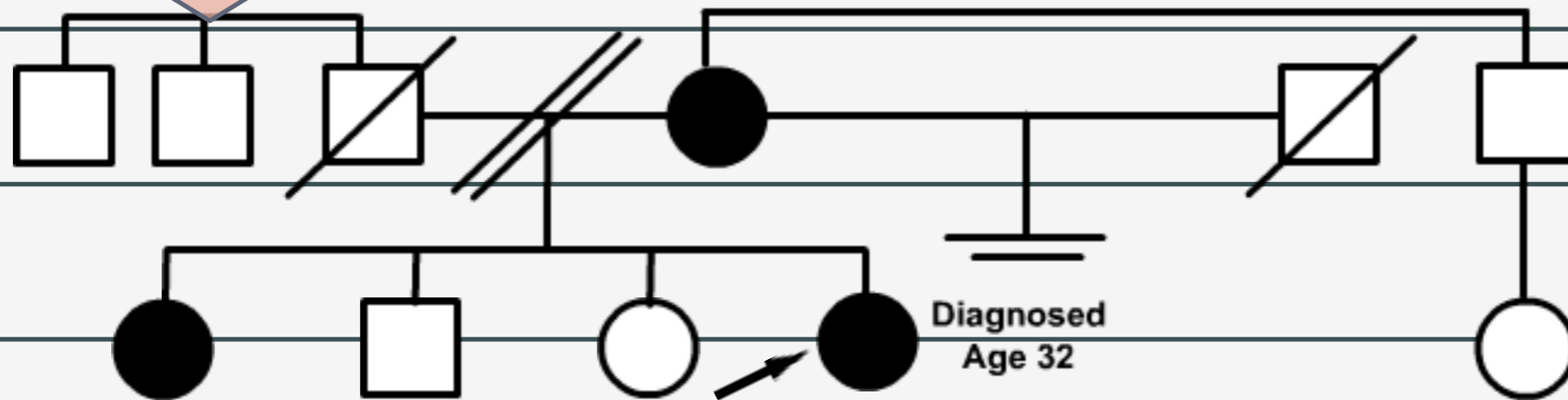
KEY

CONDITION

Name

Date

It is not necessary to put aunts and uncles in order of age.



Helen Doe  
14/5/1968  
diagnosed  
age 30

James Doe  
4/10/1970

Vera Smith  
27/3/1972

Jane Brown  
(Doe)  
12/1/1975

Diagnosed  
Age 32

Signature of person recording family history

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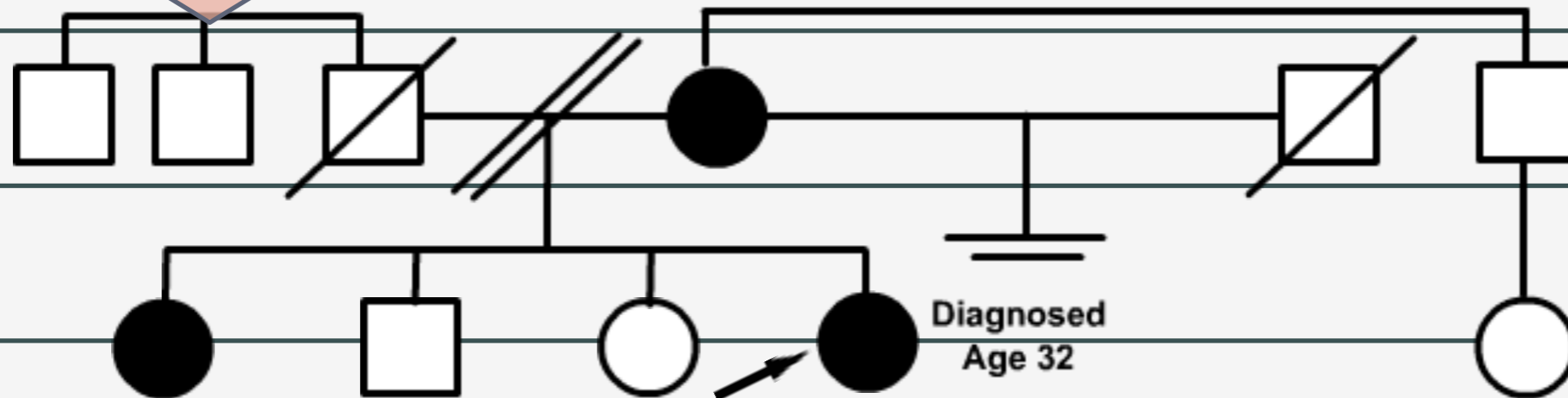
KEY

CONDITION

Name

Date

Remember to note if anyone has or had the family condition or other serious illness.



Helen Doe  
14/5/1968  
diagnosed  
age 30

James Doe  
4/10/1970

Vera Smith  
27/3/1972

Jane Brown  
(Doe)  
12/1/1975

Diagnosed  
Age 32

Signature of person recording family history

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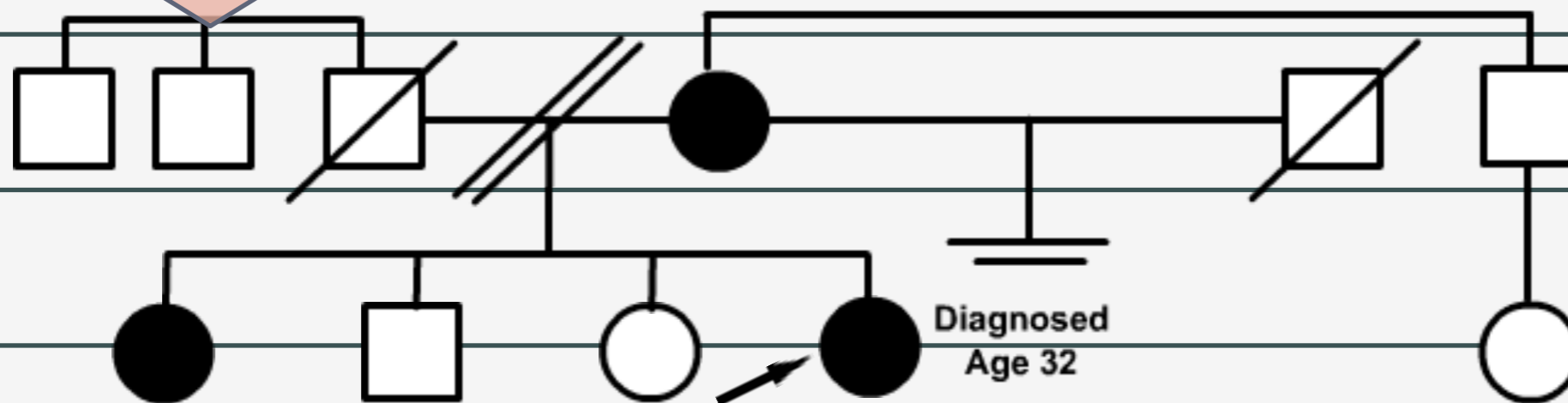
KEY

CONDITION

Name

Date

You can add in grandparents,  
if the person can give  
you information.



Helen Doe  
14/5/1968  
diagnosed  
age 30

James Doe  
4/10/1970

Vera Smith  
27/3/1972

Jane Brown  
(Doe)  
12/1/1975

Diagnosed  
Age 32

Signature of person recording family history

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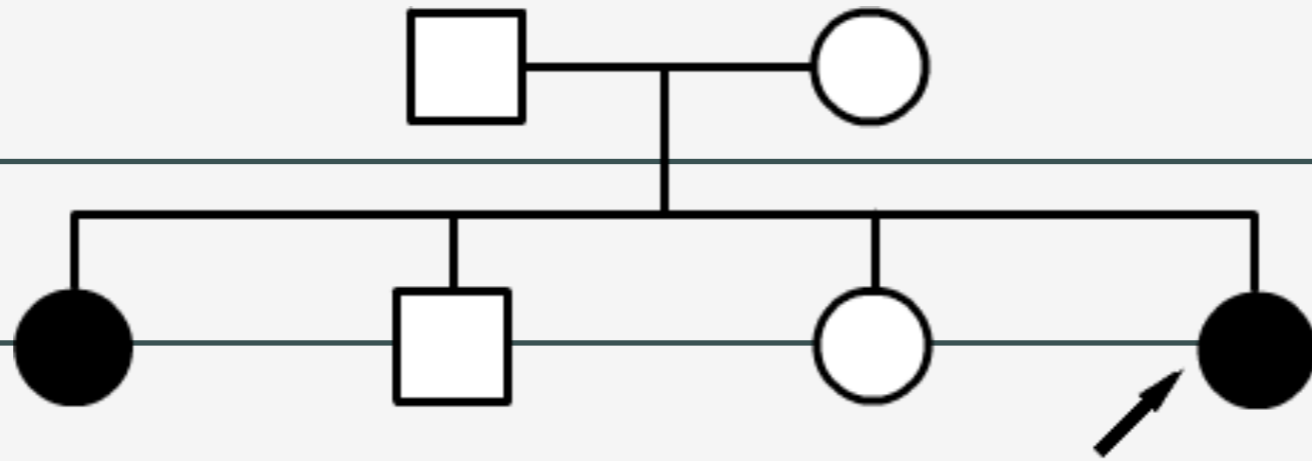
KEY



Name .....

Date .....

You now draw any children of the Consultand.



Signature of person recording family history

.....

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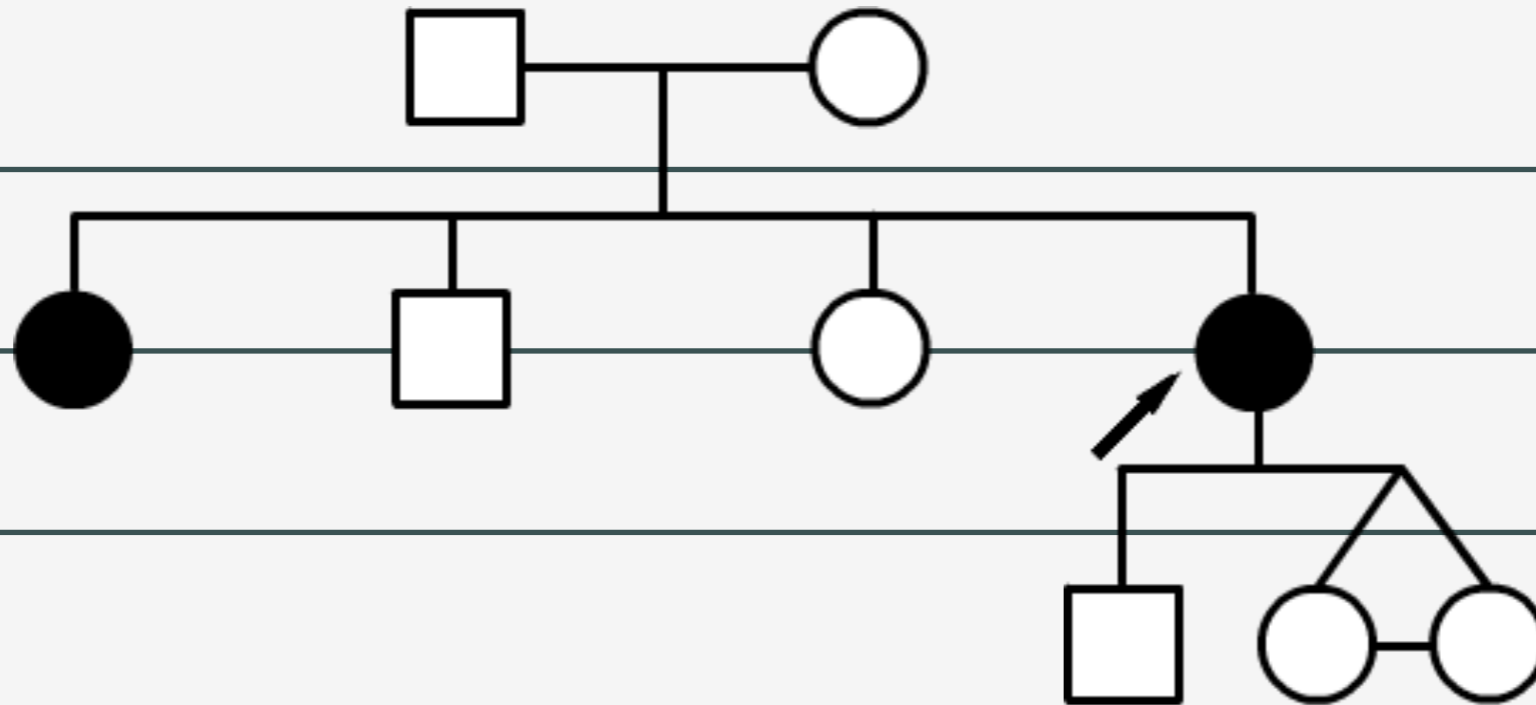


KEY

Ask Consultand if they have any children.

Name

Date



Signature of person recording family history

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Next

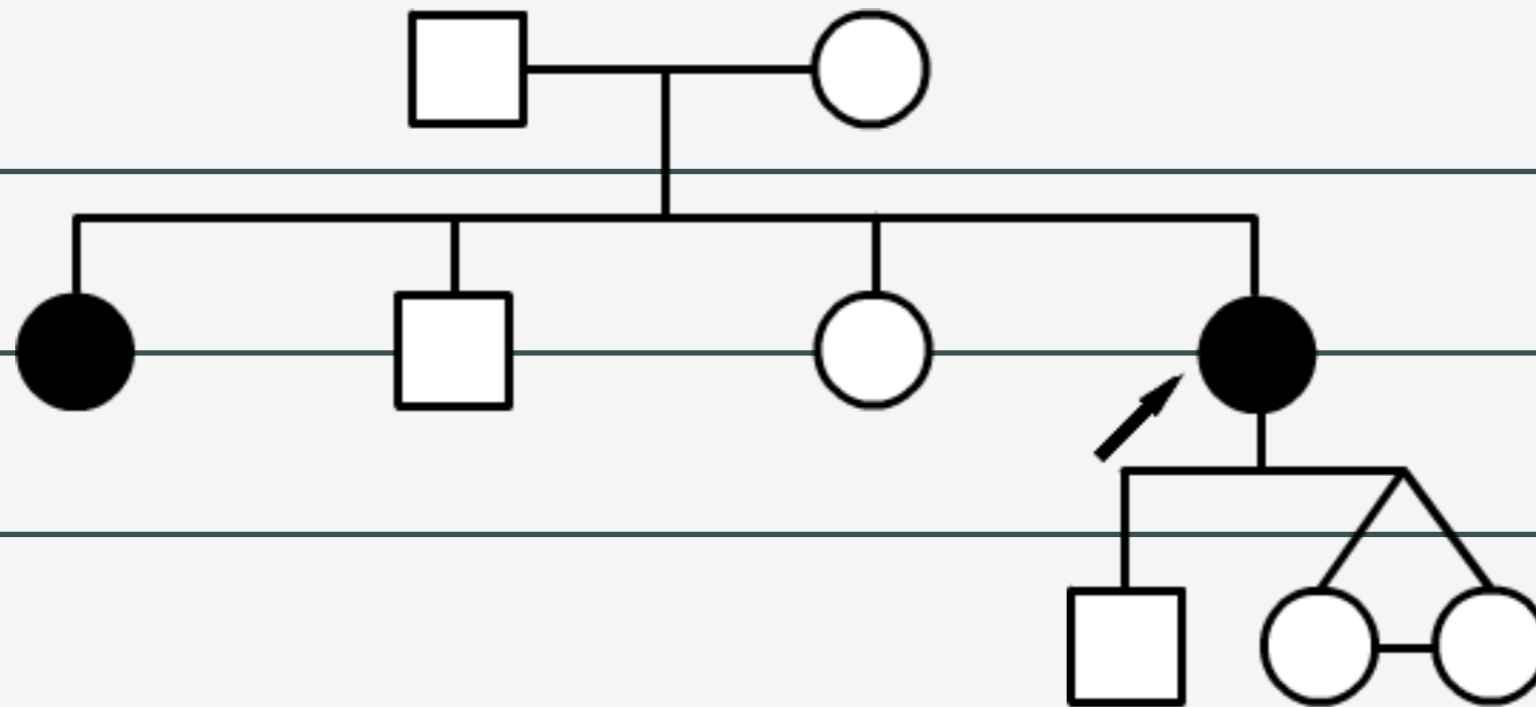


KEY

You may choose to add children before you add aunts and uncles. You will find your own order of adding this information.

Name

Date

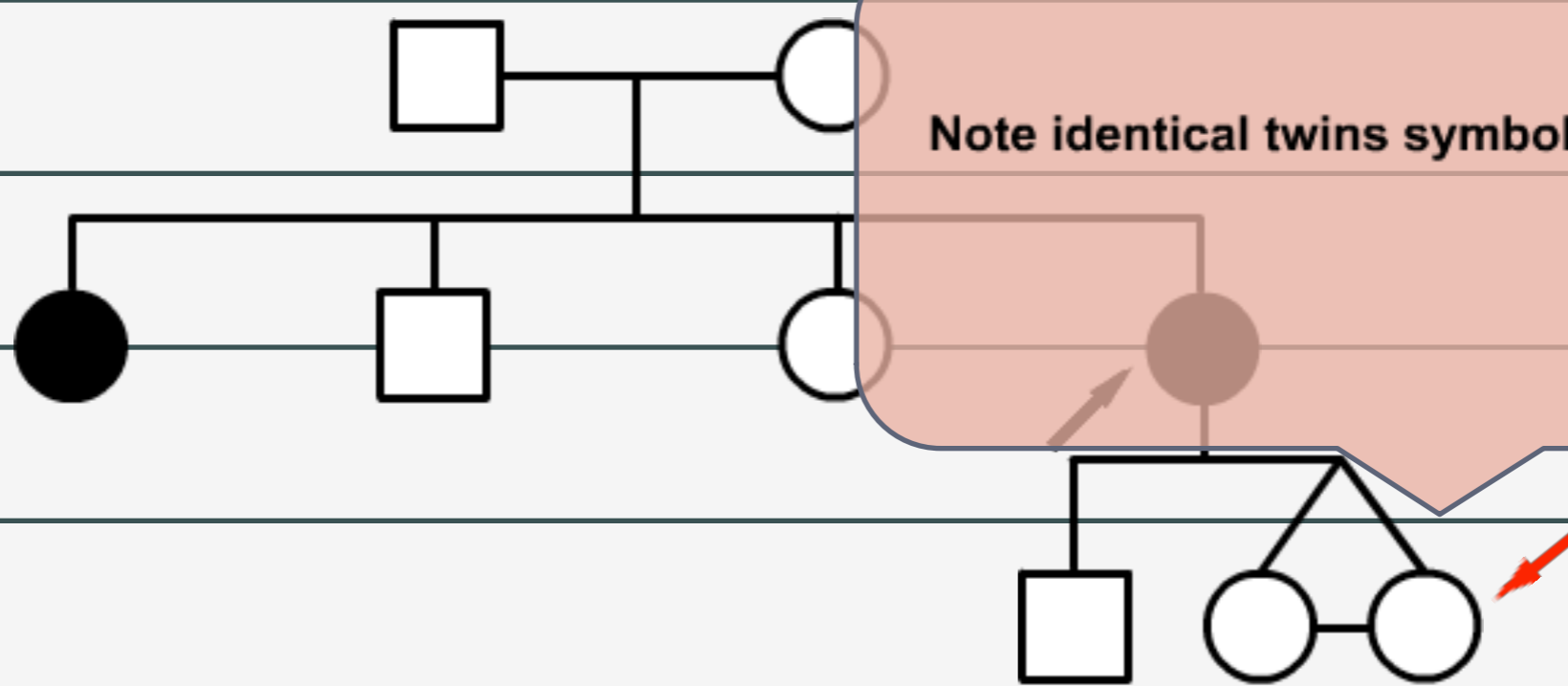


Signature of person recording family history

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Next



<b>KEY</b> ..... <input type="checkbox"/> ..... <input type="checkbox"/> ..... <input type="checkbox"/>	Name .....	Date .....
		
Signature of person recording family history .....		

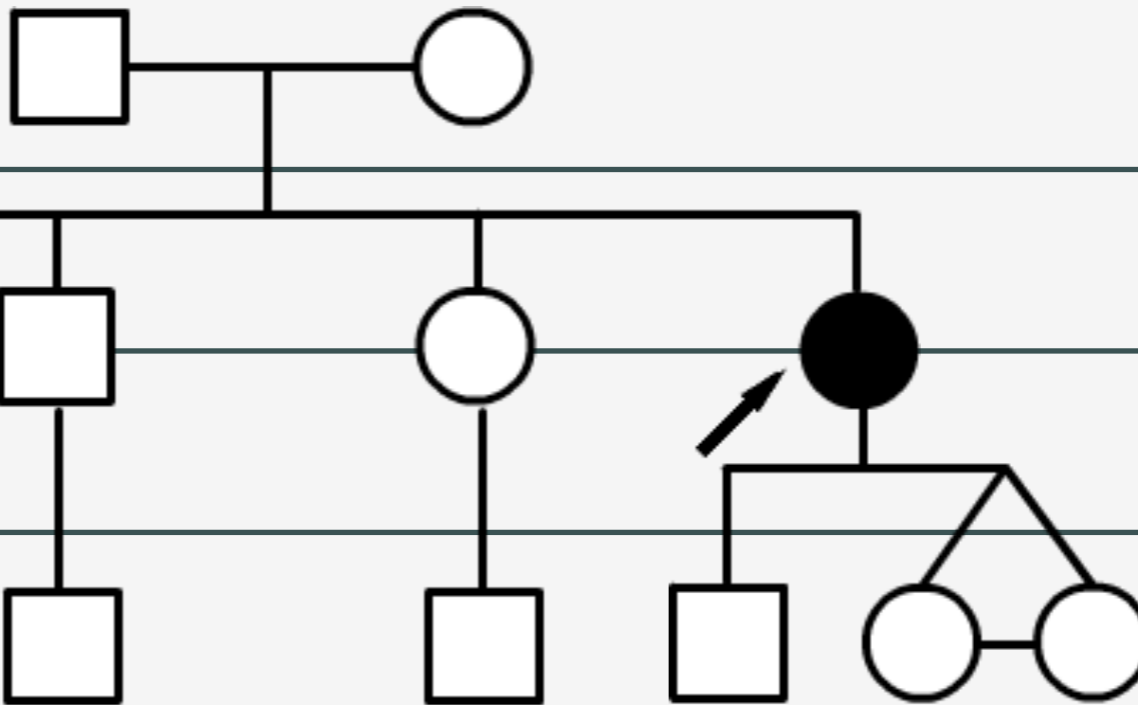
Note identical twins symbol.

KEY

.....  
.....  
**You can add children of  
siblings too.**  
.....

Name

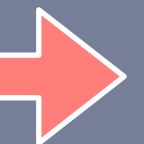
Date



Signature of person recording family history

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Next



<p>KEY</p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p> <p>..... <input type="checkbox"/></p>	<p>Name ..... Date .....</p>
<p><b>The previous family history was created using a dominant family history pattern. If you are discussing family history with a couple there is an increased chance that there could be a recessive condition in the family.</b></p>	
<p>Signature of person recording family history</p> <p>.....</p>	

Back

Next

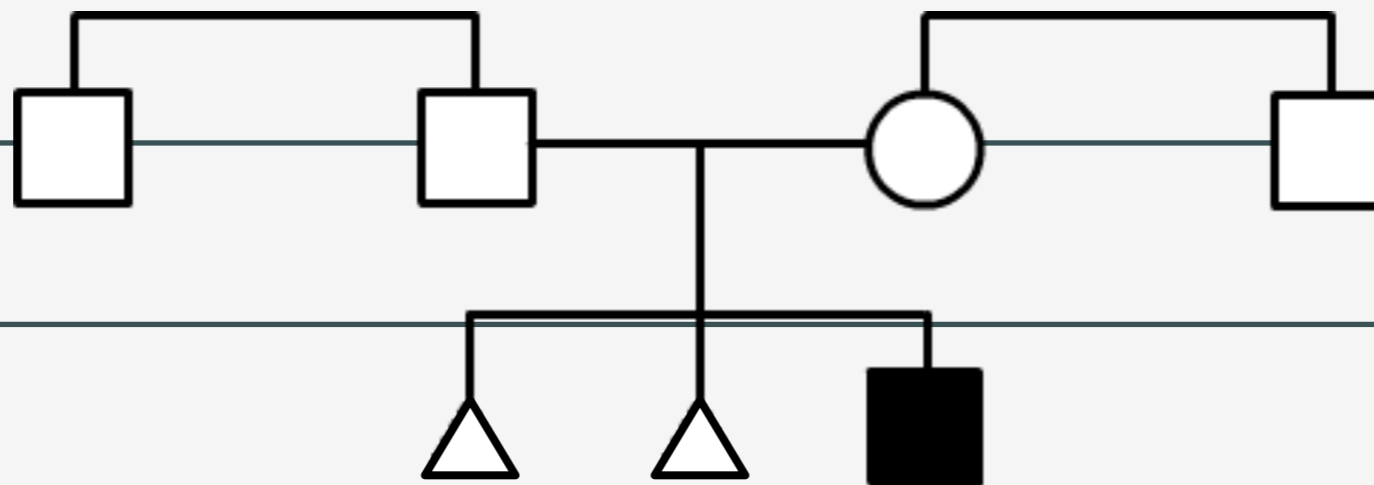


KEY

The process of constructing a recessive family tree is exactly the same as previously shown. However, you should take family history information from each partner as shown below.

Name

Date



Signature of person recording family history

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Next



# Reminders

Activity 3: 26 of  
32

**Write current name first**

- Jane Brown

**Write previous and maiden names  
in brackets**

- (White) sometime you have a previous name and a maiden name indicate (maiden: Green)

**Date of birth (if possible) or  
current age**

- Date of birth is preferred; age if DOB is not available and approximate age as a last resort. Age is only meaningful if

**Fill in the symbol of person/s affected with a condition**

- This allows the person looking at the tree to understand the conditions in family. Always remember to create the

**Ask age at diagnosis of any conditions recorded on the tree.**

- Write this next to symbol, use a triangle to represent the word diagnosed.

**Record information on deceased individuals. Record age  
at death**

- Remember to put a diagonal line through a deceased individual. This information is in addition to age at diagnosis.

**When a family member has a condition, you can write this beside the person, as well as the key.**

- Write this next to the symbol

**Use an arrow to indicate person you are seeing at an appointment.**

- This is useful to orientate other health professionals to whom you have seen in the family.

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Next



# Some more reminders

Activity 3: 27 of  
32

## **Start half way down the page.**

- Allows you to add generations above and below the person you are recruiting.

## **Make your symbols large.**

- Enables you to write all of the important information around or below the symbol.

## **Start with the eldest sibling (brother or sister) of your client, on the far left of page.**

- Allows you to record siblings in order of age, if known.

## **When there are many family members, you can use reverse of family history form.**

- Use an arrow to show there is information on reverse of family history form.

## **When you are drawing siblings of the client's parents, it is usually not possible to arrange in order of age.**

- Because the parent of your client will not always be the eldest. Only concern yourself about this for brothers and sisters of your client.

## **When adding children you can use a relationship line from the parent to child, without adding a partner.**

- Some textbooks give examples which include both parents, which is not wrong but the tree becomes very busy. **See example 1 below**

## **When creating a partnership, traditionally males are on the left and females on the right. However, when there are two partnerships, you cannot adhere to this.**

- You can create a partnership with symbols on either side. **See example 2 below**

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# Example 1

Conditions with autosomal dominant inheritance patterns only require blood relatives. It is not wrong to include partners but the family tree can look congested.

Here is an example of Relationship Lines in a family tree when you do NOT include the partner.

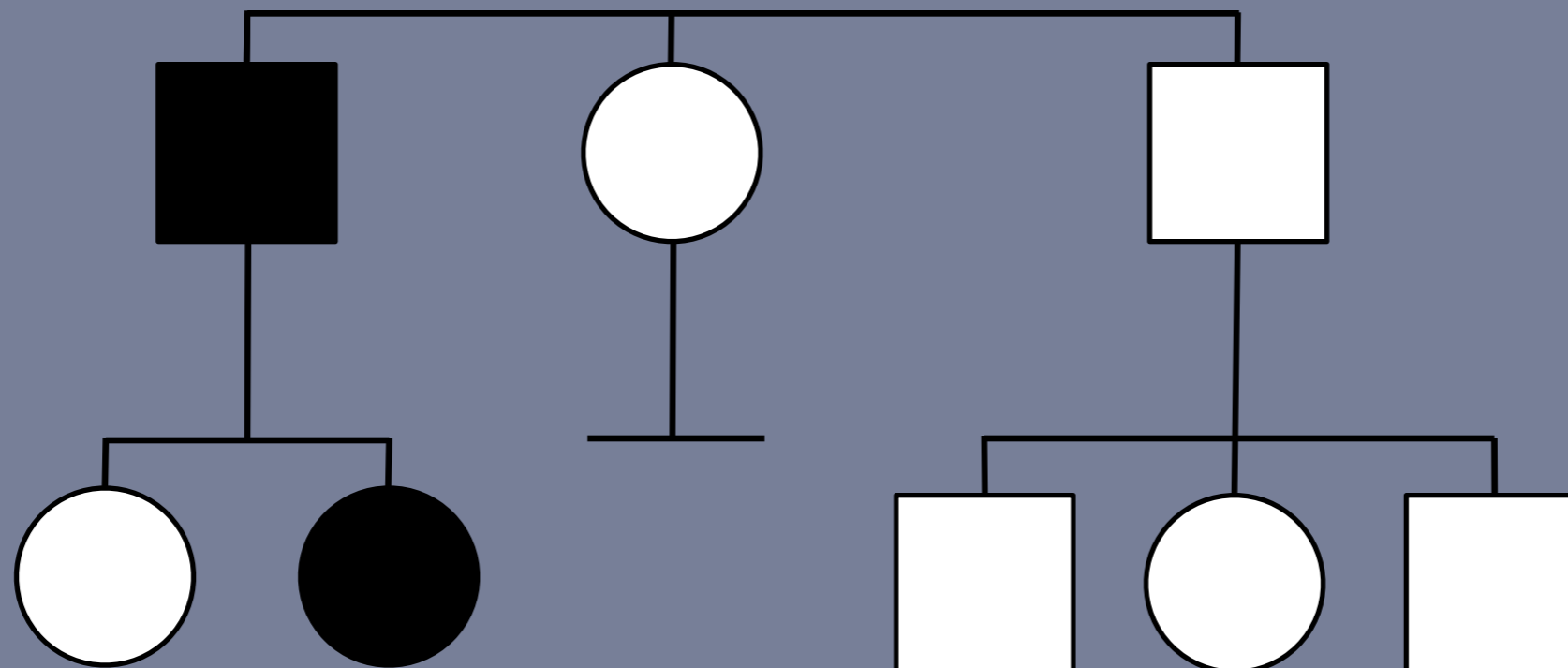
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# Dominant Family Tree



Relationship lines when adding children.

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Next



# Example 2

Here is an example of a family tree where a person has more than one relationship.

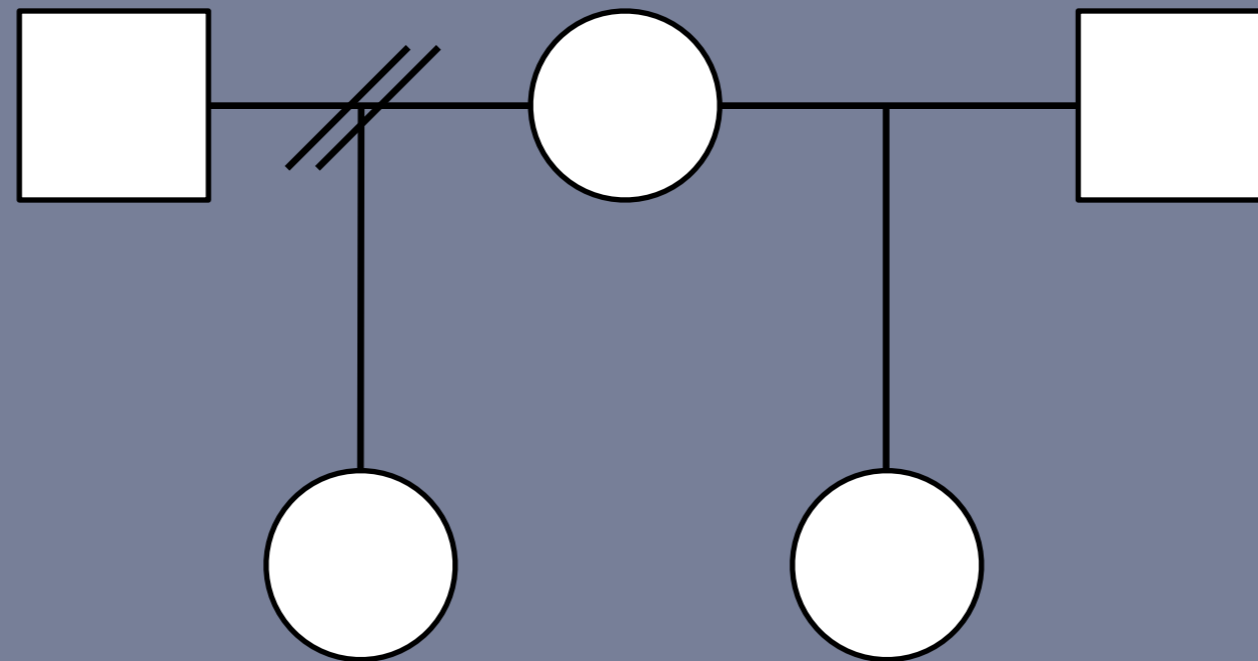
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Next



# Relationship line with two partners



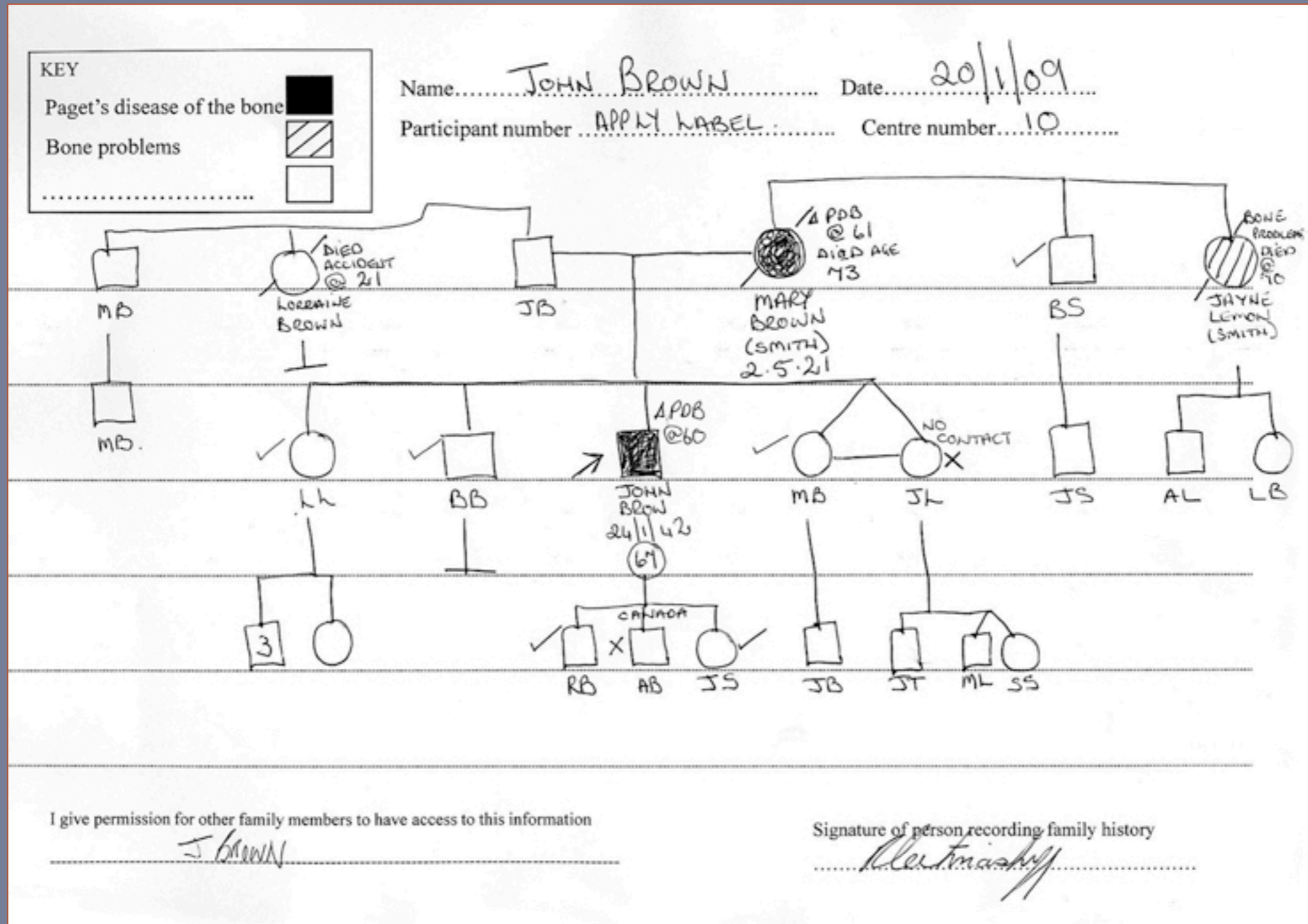
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# Example of a hand drawn family tree



This example is a person with Paget's disease of the bone but it could be any condition. This will help you understand what your family tree should resemble.

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# Activity 4

(30 mins.)



Here are two examples which could represent a referral letter to your service or the information you gather whilst speaking to a client.

This activity will help you use the knowledge that you gained from above and begin to develop your drawing skills.

When drawing your family tree you can use a family history form (see next slide) or just use blank paper.

Menu

Back



BEGIN



KEY

.....	<input type="checkbox"/>
.....	<input type="checkbox"/>
.....	<input type="checkbox"/>

Name

.....

Date

.....

Signature of person recording family history

.....

# Family One

- Your client, Anna, is 35 years old.
- She has a brother, Brad, who is 32.
- Anna and Brad are the only children of Charles and Nancy.
- Charles died at age 61 from cancer.
- Nancy is alive and well at age 57.

- Anna is married to Don, who is 36.
- They have identical 6 year-old twin boys, James and John.
- Brad and Linda have a 5 year-old daughter, Sarah, and a 2 year-old son, Michael.
- Brad and Linda are recently divorced.

# Family Two

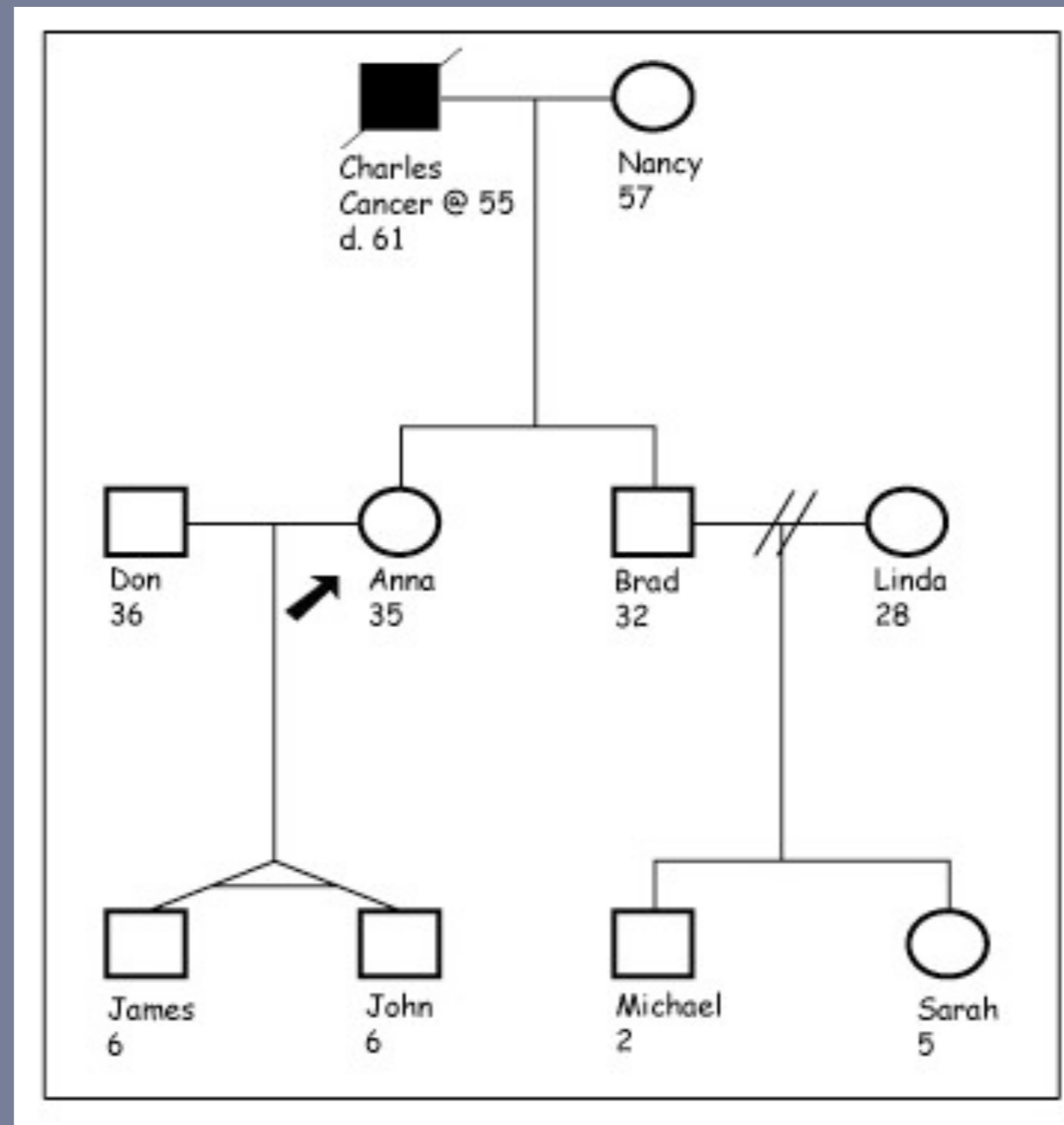
- Lily is 28 years old (9.1.80).
- She has an appointment to look at a wound on her left foot that isn't healing well.
- Lily has a younger brother, Nick (23.11.82), and a little sister, Sharon (30.6.84).
- Lily's parents are George (10.2.55), who is obese, and Maureen (4.3.58).
- George's brother, Edward (18.11.58) is obese.

- George's sister, Rachel (21.7.52), has Type 2 diabetes.
- George's parents are both deceased, and his father died of a heart attack.
- On her mother's side, she has three aunts, who are all alive and well.
- Lily's maternal grandparents are Ralph and Beatrice, who both turned 75 in 2007 (so were born in 1932).

# The next two slides ...

demonstrate what your Family Trees should resemble

# Family One Family Tree

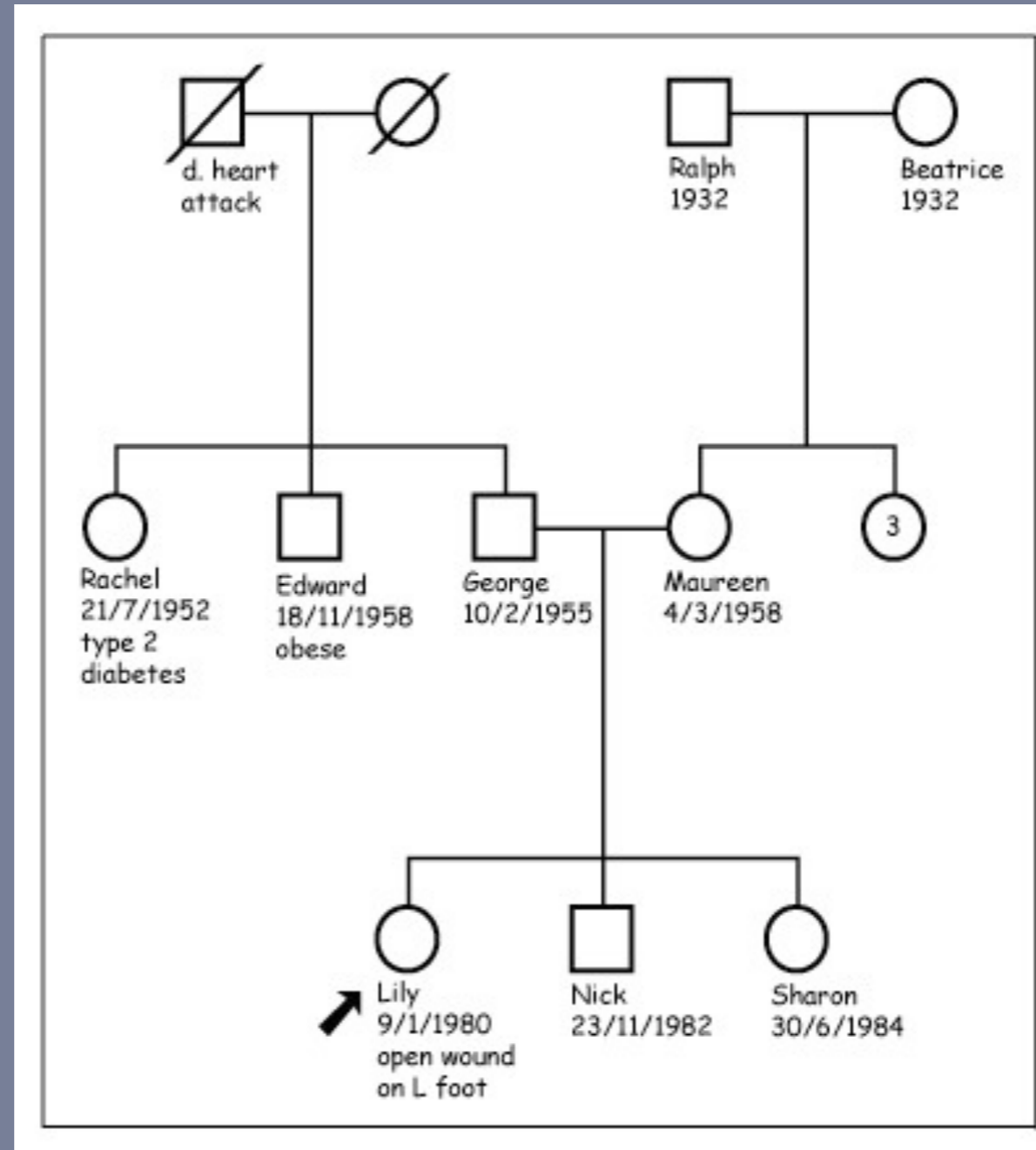


Remember you can draw the relationship line from Anna or Brad to their children. It is not essential that you add in their partners. The hand drawn family tree is neater without partners.

This is the family tree that you can draw from the information given. You would want to speak to Anna and add in all dates of birth, surnames, maiden names, the age of diagnosis & the type of cancer diagnosed in her father.

Remember adding the date to a family tree will assist with calculating a family member's age, if this family tree needs to be revisited at a later date. This is useful if dates of birth are not available for some individuals. Also a key should be created when you know the type of cancer Charles had and the family tree should be dated

# Family Two Family Tree



In this family tree you have been given some dates of birth.

However, you would want to add surnames, maiden names, dates of death, and maternal and paternal cousins, when possible.

# Activity 5

(at least 30 mins.)



Here are two scenarios that you may want to try and create using your new knowledge.

After each scenario you will find a respective hand drawn family tree with additional notes.

Take some time to read the scenario, draw your version of the family tree and then compare your own drawing to the example.

Menu



BEGIN



# Scenario 1

Please read through before you begin to draw the family tree

This scenario could be typical of a situation that you may encounter in your daily work.

**Diane Brown (nee Smith) DOB - 02/05/82** is at her GP surgery for a routine Cervical Smear Test, **date of appointment 02/05/2011**. In conversation with the practice nurse she begins to talk about how she does not want to have a baby because her brother died of Cystic Fibrosis (CF), at age 16. She said she would not want to go through this again and also recognised that it was difficult for her parents; not only to lose a child but the care and attention that he required during his lifetime.

The nurse acknowledged that she did not know enough about the inheritance pattern to discuss it fully, nor did she know what test/services were available to Diane. She explained that, if she would like an appointment to discuss this further then she could draw her family tree and send it to the genetic department.

The nurse began by asking Diane about all of her siblings. Diane shares with the nurse that she had a younger brother, **Peter Smith (13/04/85) (died 20/08/01)** and has younger sister **Claire Smith (03/01/89)**. Neither she nor her sister had any children. She then tells the nurse that both of her parents are alive and well, her mother **Shirley Smith (nee Wilson) (23/04/54)** her father **John Smith (12/08/53)**.

The nurse then asked about her maternal (mother's side of family) family history. Diane's mother had one sister **Anne Johnstone (18/08/59)** and one brother **Christopher Wilson (06/09/60)**. Aunt Anne has two married daughters, **Carol age 30 and Linda age 27**; Diane did not know their married names nor dates of birth. **Uncle Christopher** had a boy and a girl, **David (15/04/85)** and **Michelle Maxwell (07/07/87)**, Michelle was currently six months pregnant.

Diane was asked about her maternal grandparents. They were **David Wilson** who died age 75 of a heart attack and she did not know his date of birth and **Mary Wilson (nee Jack)** who was relatively healthy at age 79 and was born in 1932. There were no major illnesses in Diane's aunt, uncle or cousins that she had been made aware of.

The nurse then asked for paternal (father's side of family) family history. Diane's father had one sister **Angela Duffy (Smith) (24/01/56)** who was diagnosed with breast cancer, aged 55. Aunt Angela has one daughter **Pamela Farrell (Duffy)** who is 32 and has no children. Both Diane's paternal grandparents had been dead for a while and she did not know much about them.

Please draw this family tree before moving to next slide to see the hand drawn example.

## For information only

Cystic fibrosis is a recessive condition. To have a recessive condition you inherited a genetic change from your mother and a similar genetic change from your father. Having one copy of this change does not harm to your own health.

In this scenario, Peter had two copies of a cystic fibrosis (CF) genetic change and he had the condition. As we know Diane has not got the condition she may be a carrier of a genetic change which she would have inherited from her mother or father as they both have one copy of a genetic change that can result in CF. Alternatively, she may not be a carrier.

Diane should be referred to a genetic department for discussion. Diane will be given the choice for her and her husband will be offered testing. If Diane is a carrier and her husband is a non-carrier then the high risk to any children they have is a carrier which will not affect health. If Diane's husband is also a carrier they will be given the option that will be available to them should they wish to have a baby.

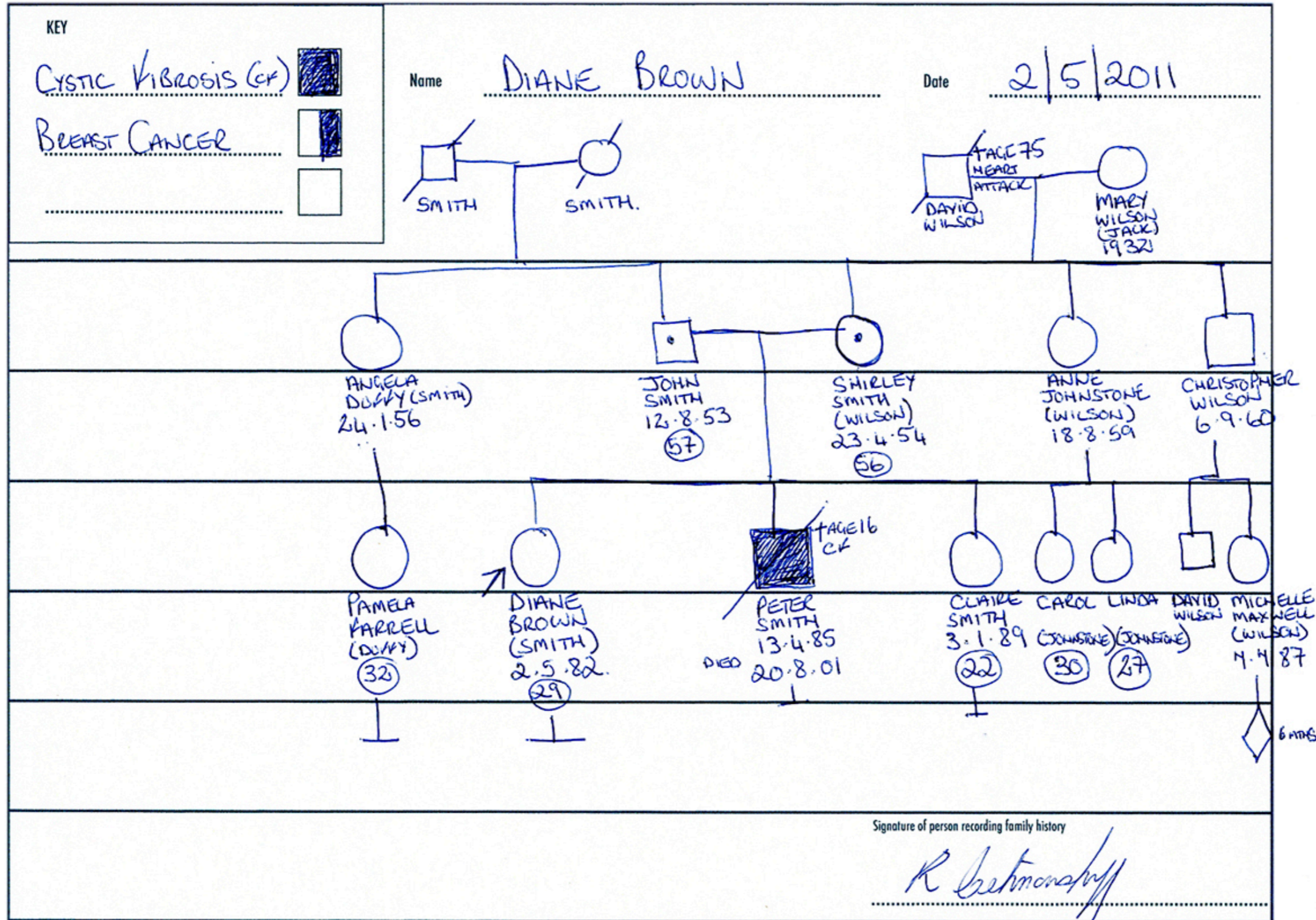
More information on recessive and dominant inheritance can be found at:

[ScotGEN](#)

[NHS Genetics Education](#)

[Genetics Australia](#)

# Hand Drawn Tree



**Additional information.** You will note that the family tree has ages calculated (circled numbers). This can help the genetic department should the family tree be looked at some years later.

# Scenario 2

Please read through before you begin to draw the family tree

This scenario could be typical of a situation that you may encounter in your daily work.

During visiting hour on 15th April 2011, a female visitor comes to ask about her mother (a patient on your ward). This visitor becomes very upset as her mother was given a recent diagnosis of endometrial cancer.

During your conversation the young woman **Susan Lee**, informs you she is upset because many of her relatives have had cancer and she is worried she could get it soon too. You ask if she would like to give you more information about her family history and you can then contact the genetic department for more advice for her.

Using a blank sheet of paper to sketch out the family information that Susan can provide, you ask Susan if she has siblings and where she is placed in that sib ship in order of age. Susan tells you that she has an older brother **James Lee (14/02/68)** and when he was age 41 he was diagnosed with colorectal cancer (CRC). James has two boys; **Andrew age 20** and **Liam age 15**. Susan also has an older sister **Sally Grant (02/07/70)**. Sally has two girls; **Jane age 16** and **Jade age 14**. You ask Susan her date of birth (**27/11/75**) and she tells you she has no children yet.

You know Susan's mother is **Margaret Lee (28/01/47)**. Susan tells you her mum's maiden name was **Bowes** and she has only one brother, **George Bowes**. George is 68 and currently well but was diagnosed with CRC at age 64. George has a married daughter **Jenny, age 47** and he has identical twin boys; **Paul and Robert, age 42**. They have little contact with Susan and she has no more information.

You ask if any of her maternal (mother's side) grandparents had any illnesses. Susan said her grandfather **George Bowes** died at age 55 in a road traffic accident and her grandmother **Jenny Bowes (Finlay)** is relatively well, at age 88.

You ask about her father's side (paternal) of the family. Susan's father is **Mark Lee (08/08/43)** and has one brother **John Lee** who is age 63 and he has no children. Her paternal grandparents are **John and Mary Lee (Brown)**. Her grandmother died at age 72 after many years with heart problems and her grandfather Lee is age 88 and has type 2 diabetes which was diagnosed 5 years ago.

Please draw this family tree before moving to next slide to see the hand drawn example.

## For information only

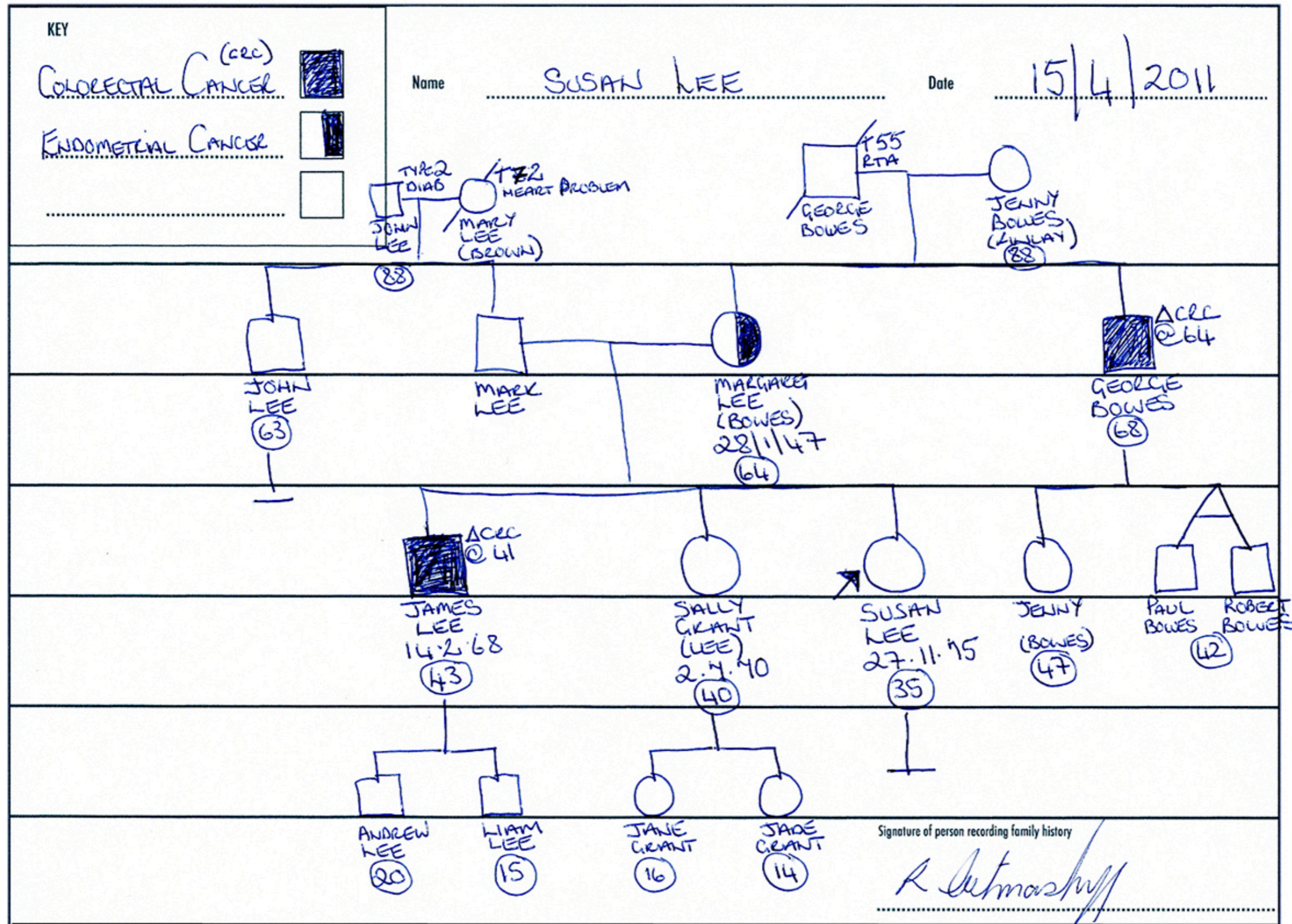
We are aware that some of the common cancers can have an inherited component. Therefore in many areas of the country there is a cancer genetic service. Each service will use guidelines to assess the risk to unaffected family members and offer screening where applicable. However, the guidelines vary across the UK and in other countries. It is worth taking a little time to find out which guidelines are used in your own area of practice or even the contact number for the service in your area.

In this scenario, if all of the cancer diagnoses were confirmed Susan, her sister and her three cousins would all be eligible for screening by colonoscopy. However, the age this would commence and the frequency would be determined by local guidelines.

In addition, the cancer genetic department would be interested to discuss testing options with Susan's brother initially as he is the youngest with cancer in the family.

More information on cancer genetic services can be found via your local hospital.

# Hand Drawn Tree



**Additional information.** You will note that the family tree has ages calculated (circled numbers). This can help the genetic department should the family tree be looked at some years later.

# Activity 6

(at least 30 mins.)



Now that you have the basic knowledge you should begin to practise your skills of drawing a family tree. One way to do this is to draw your own family tree.

Whilst you are doing this you may want take a mental note of the information on the family tree that you do not readily know. Be aware of your feelings when thinking back to events within your own family. Remember this will be that same for your clients.

If you need to take a family history from your client, it is best to give them advanced warning to enable the client to gather some background information.



# Activity 7

(30 mins.)



When you have drawn your own family tree, you could then ask a close friend or partner if you can ask about their family history.

When you have confidence with the symbols to construct a family tree, you need to combine this with asking questions, listening to the information given and then using the information to create a family tree.

Depending on your area of practice asking information about family history can be very emotional for your client, as it means that your client may have to revisit painful memories or your client may feel very embarrassed that they cannot provide the information.

On occasions, the person may be very distressed as they realise that a pattern is emerging in the family and they may become concerned. You should then seek help from your local genetic department.



# Suggestion

You may find that for your area of practice it would be useful for your client to attempt to create their own family tree construction or your client asks about creating their own to keep and share with other family members.

If this is the case, then you can direct them to the [ScotGEN website](#) where they can download an interactive PDF.

If you wish to read more about why/when you would take a family history and construct a family tree then you may like to look at this site - [NHS National Genetic Education and Development Centre website](#)

This site has many interesting areas to support your learning.

It may be useful to print out the next two slides to use when drawing the family tree.

KEY

.....	<input type="checkbox"/>
.....	<input type="checkbox"/>
.....	<input type="checkbox"/>

Name

.....

Date

.....

Signature of person recording family history

.....

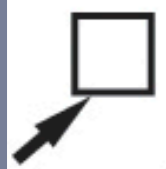

# INDIVIDUALS

MALE FEMALE




  Unaffected Individual

  Affected Individual

  Deceased

  Proband (person giving information)


  Gene Carrier

   Pregnancy - fetus: male, female or unknown gender

  Individuals with No Children

OTHERS


 Sex Unknown

 Pregnancy Loss (i.e. miscarriage, stillbirth, elective abortion)z

# RELATIONSHIPS

I II III Generation Number


 Marriage/Relationship


 Marriage/Relationship has ended


 Second Marriage/Relationship



 Consanguinity (closely related partners)

  Adoption  
out of family into family

 Sibling Relationship Line

 Non-identical Twins

 Identical Twins

   Number of Sibs of Same Sex

