

Pedigree and Punnett Square worksheet

On a blank sheet of paper, draw the pedigree for the people described below. You will probably want to put the paper sideways (landscape.)

There are 29 people in 4 generations.

Generation I: people 1-8. 1 mates with 2; 3 mates with 4; 5 mates with 6; 7 mates with 8

Generation II: people 9 – 19. 11 is a child from 1+2; 12 is a child from 3+4; 17 is a child from 5+6; 18 is a child from 7 + 8

Generation III: people 20 – 25: Children 20, 21, 22 from 11+12; children 23, 24, 25 from 17 + 18.

Generation IV: people 26 – 29: Children from 22 + 23.

Other info:

1+ 2 have two girls and 1 boy
3 + 4 have one girl and 2 boys
5 + 6 have one girl and 2 boys
7 + 8 have one girl and one boy

11 + 12 have two girls and one boy
17 + 18 have two boys and one girl

22 + 23 have two boys and two girls

Person 27 is a boy and is fully affected
Person 29 is a girl and is fully affected
Person 26 is a girl who died at childbirth
Person 22 is a girl
Person 23 is a boy
Person 17 is a boy
Person 18 is a girl
Person 12 is a girl
Person 11 is a boy

Who is affected and who is a carrier?

Well, we know that 27 and 29 are fully affected, not carriers.

We are told that 1, 10, 19, and 24 are carriers. Person 1 is a male.

We know that people 8, 27, and 29 are fully affected. Person 8 is female.

We know that neither 5 nor 6 are affected or carriers. They are totally healthy for this trait.

People 11 and 12 look normal. They could be carriers, but are not affected.

We don't know about other people. They could be carriers or not.