



Pathology

The Facts

Why do I need a **pathology** test?

More than 11 million Australians have at least one pathology test a year for a variety of reasons. Here is a snapshot of those reasons, including some points to consider.

Pathology tests can assist a medical diagnosis

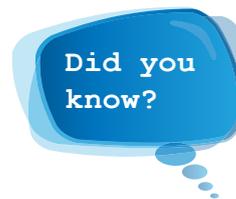
Pathology tests are associated with more than 70% of all diagnoses and almost all cancer diagnoses. They can:

- provide information to confirm or exclude the presence of particular diseases, such as a wound swab to confirm or rule out a bacterial infection
- provide a final diagnosis such as an assessment of a biopsy to check if a mole or lesion is a skin cancer.

Pathology tests can assist disease/condition monitoring and management

Approximately 20% of pathology tests are requested to monitor and manage the progress of a disease or condition, and provide information about how it is likely to progress (prognosis). An example is using blood tests to monitor the progress of kidney disease. Pathology tests can also:

- help monitor the effectiveness of treatment for a disease or condition such as assessing the average amount of glucose in the blood over a few months to monitor diabetic control



Pathology tests don't give a simple 'yes' or 'no' answer about the future risk of a disease. Pathology test results must be assessed along with other factors such as age, environment or gender.

- help prevent an infectious disease spreading to others in the family or wider community such as testing pregnant women for rubella (German measles) to prevent serious birth defects or miscarriage.

Pathology tests can assist treatment monitoring and preparation

Approximately 13% of pathology tests are requested to monitor treatments such as drug therapy. Pathology tests can also determine how well a treatment is working by:

- determining the response to a therapeutic drug treatment such as warfarin therapy to "thin the blood"





- confirming the treatment is working, or if the dose for drug treatment needs adjustment, such as using a thyroid function test to check if thyroxine replacement therapy is effective.

Pathology tests can also help prepare a person for treatment by:

- assisting pre-treatment preparations such as cross matching blood prior to having a blood transfusion following an accident or surgery
- excluding the possibility of an adverse event such as testing for certain antibodies to prevent a blood transfusion reaction
- monitoring the progress of a disease or condition with and without treatment.

Pathology tests can be used to screen for particular diseases

Screening is an organised and systematic public health strategy to reduce the incidence of death and illness from particular diseases. For example, Pap smears are used to screen women for cervical cancer as part of the National Cervical Screening Program.

Another type of screening is 'opportunistic' which happens when a treating practitioner decides that a person may have an increased risk of developing a particular disease. For example, a person with a family history of diabetes may have their

blood glucose levels checked when they consult their treating practitioner for another reason.

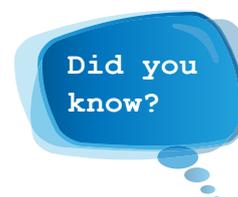
Pathology tests can be used for health checks

Pathology tests can provide information about some aspects of a person's health at that point in time. They can also assist in the early detection of diseases which avoids delayed diagnosis and the possibility of advanced forms of the disease. For example, a person with high blood pressure may have a pathology test to assess their risk factors for heart disease.

Pathology tests can help classify the future risk of disease

Classifying the future risk of disease is often useful for implementing early intervention or prevention strategies. Pathology tests can help this process by:

- documenting a baseline measurement for future reference such as a lipid (blood fat) profile to record cholesterol levels
- predicting if a disease has a high risk of developing such as monitoring the risk of diabetes in people who are overweight or obese
- providing an indication about the risk of developing a particular inherited disease or condition,



Screening tests are not 100% accurate because they are designed to provide early information about a disease. A positive result simply means additional review and testing may be required, while a negative result is reassuring, but does not guarantee the condition will not present itself in the future.

such as familial breast cancer, through genetic testing of people with a high-risk profile.

Pathology tests for employment health checks

Some employers may request drug screens to detect or exclude the presence of abused and/or illegal drugs before they offer employment.

Pathology tests for insurance

Pathology tests for insurance purposes are not compulsory, but the insurer may decide not to provide insurance without them.



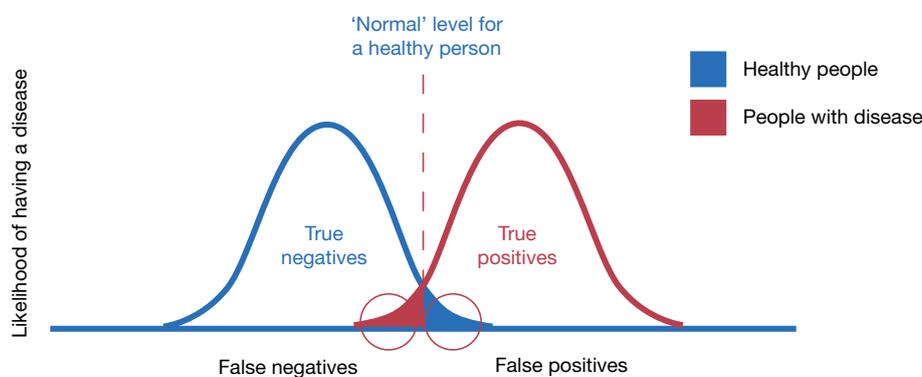


Possible outcomes of any pathology test

There is always the possibility of a healthy person testing positive for a disease or condition they don't have ("false positive"), or a person testing negative for a disease or condition they do have ("false negative"). This is why pathology test results should be interpreted by the requesting practitioner who will take other factors into account, such as age, gender, environment, medications, family history and other medical conditions, when considering a diagnosis or interpreting an unexpected test result.

Did you know?

The insurance industry in Australia has agreed not to require an applicant or insured person to have a genetic test as part of a policy application. (Refer to fact sheet - What should I know about genetic testing.)



There are some healthy people who test positive for a disease (false positive) and some people with a disease who test negative (false negative)

Reliable information on pathology can be found at:

The Royal College of Pathologists of Australasia (RCPA) - www.rcpa.edu.au

ePathWay (the RCPA's online magazine for consumers) - <http://epathway.rcpa.edu.au>

The RCPA Manual - <http://rcpamanual.edu.au>

The Pathology Associations Council (PAC) - www.pathology.med.pro

Lab Tests Online - www.labtestsonline.org.au

