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Medical Encyclopedia: Antinuclear antibody panel

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Alternative names

ANA; ANA panel

Definition

This is a blood test to measure the presence of antinuclear antibody.

How the test is performed

Blood is drawn from a vein, usually on the inside of the elbow or the back of the hand. The puncture site is cleaned with antiseptic, and an elastic band is placed around the upper arm to apply pressure and restrict blood flow through the vein. This causes veins below the band to fill with blood.

A needle is inserted into the vein, and the blood is collected in an air-tight vial or a syringe. During the procedure, the band is removed to restore circulation. Once the blood has been collected, the needle is removed, and the puncture site is covered to stop any bleeding.

For an infant or young child:

The area is cleansed with antiseptic and punctured with a sharp needle or a lancet. The blood may be collected in a pipette (small glass tube), on a slide, onto a test strip, or into a small container. Cotton or a bandage may be applied to the puncture site if there is any continued bleeding.

How to prepare for the test

For infants and children:

The preparation you can provide for this test depends on your child's age, previous experiences, and level of trust. For specific information regarding how you can prepare your child, see the following topics:

- Infant test or procedure preparation (birth to 1 year)
- Toddler test or procedure preparation (1 to 3 years)
- Preschooler test or procedure preparation (3 to 6 years)
- Schoolage test or procedure preparation (6 to 12 years)
- Adolescent test or procedure preparation (12 to 18 years)

How the test will feel

When the needle is inserted to draw blood, some people feel moderate pain, while others feel only a prick or stinging sensation. Afterward, there may be some throbbing.

Why the test is performed

This test is used when autoimmune disease is suspected (particularly systemic lupus erythematosus). This test can also be performed when a patient has unexplained symptoms such as arthritis, rashes, or chest pain.

Normal Values

Usually, there is no detectable ANA in the blood (negative test). Sometimes, however, people without any specific disease may have low levels of ANA for no apparent reason.

What abnormal results mean

Antinuclear antibodies are antibodies produced by the immune system that attack the body's own tissues instead of foreign toxins. They are frequently present in people with systemic lupus erythematosus and, less commonly, in other diseases.

The presence of ANA in the blood may indicate:

- SLE (systemic lupus erythematosus)
- Drug-induced lupus erythematosus
- Collagen vascular disease
- Myositis (inflammatory muscle disease)
- Sjogren's syndrome
- Chronic liver disease
- Rheumatoid arthritis

ANA may also be present occasionally in people with:

- Systemic sclerosis (scleroderma)
- Thyroid disease

What the risks are

- Excessive bleeding
- Fainting or feeling light-headed
- Hematoma (blood accumulating under the skin)
- Infection (a slight risk any time the skin is broken)
- Multiple punctures to locate veins

Special considerations

The ANA can be positive in relatives of those with SLE who do not have SLE themselves. Also, many drugs affect the accuracy of this test. Examples are: birth control pills, Procainamide, and thiazide diuretics.

Veins and arteries vary in size from one patient to another and from one side of the body to the other. Obtaining a blood sample from some people may be more difficult than from others.

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