

# Secretor Status

The term 'secretor' or 'non-secretor' refers to the ability of an individual to secrete ABO blood group antigens in bodily fluids such as saliva, sweat, tears, serum and the gastrointestinal mucus secretions. The function of ABO antigens remain an enigma, however it has recently been suggested that blood groups and secretor status are part of innate immunity against infectious disease. Non-secretors have an increased risk for urinary tract infections, candida, autoimmune disorders and heart disease. By determining secretor status, a predisposition to these conditions can be assessed and preventative therapies can be introduced.

**Table 1: Biochemical changes associated with 'non-secretor' status**

Decreased ABO antigens in secretions; this may lead to increased bacterial attachment and persistence
Lowered IgG and IgA levels; this means that non-secretors will have a more limited antigenic barrier in their bodily fluids
Reduced levels of the complement system of the immune system
Decreased levels of the complement system of the immune system
Increased levels of clotting factors; this may increase the risk for future thrombosis and heart disease

## Secretor Status

The term 'secretor' or 'non-secretor' refers to the ability of an individual to secrete ABO blood group antigens in bodily fluids such as saliva, sweat, tears, serum and the gastrointestinal mucus secretions. A person who is a 'secretor' will secrete antigens according to their blood group. i.e. a group O individual will secrete H antigen, a group A individual will secrete A and H antigens etc. Obviously a 'non-secretor' or weak secretor will have no or little antigen present in their bodily fluids.

A majority of Caucasians (80%) are secretors, whereas 20% of them are non-secretors. Although weak-secretor individuals are rare in this population they seem to be common among Chinese, Japanese, Polynesians, Australian aborigines, and African-Americans.

Although both the ABO blood group antigen system and secretor status have been described between 60-100 years ago, the function of ABO antigens both on red blood cells and in bodily fluids has remained an enigma. One recent paper suggests that individual ABO blood groups and secretor status are part of human's innate

immunity against infectious disease. Decreased antigens may affect bacterial attachment and persistence on mucosal epithelia. Consistent with this theory is the observation that non-secretors have an increased risk for urinary tract infections, candida and dental cavities (Table 2). Furthermore, non-secretors have changes in their immune system function and have higher rates of autoimmune disorders (Table 1 and 2). Non-secretor status is also associated with increased levels of clotting factors and heart disease (Table 1 and 2). By determining secretor status, a predisposition to certain conditions can be assessed and preventative therapies can be introduced.

**Table 2: Non-secretors may have a higher risk for:**

Alcoholism	Ischemic heart disease
Asthma	Oral precancerous lesions
Autoimmune diseases; ankylosing spondylitis, reactive arthritis, multiple sclerosis, Grave's disease	Peptic ulcers
Blood clots	Respiratory viruses
Candida infections	Type I diabetes & associated retinopathy
Celiac disease	Urinary tract infections
Dental cavities	

### What Does the Test Determine?

The saliva secretor status test determines whether antigens (corresponding to the patient's ABO blood type) are secreted (or not) into bodily fluids such as saliva. Therefore a patient is classified as a secretor or non-secretor.

### Test Preparation

- During the hour prior to collection do not eat, drink, brush teeth, use mouthwash or apply make-up. Remove any lipstick.
- Before beginning collection wash your hands thoroughly with soap and water.

### Specimen Collection Requirements

Collect a single saliva specimen at any time of any given day.

### Result Turnaround Time

One week after receipt of sample and test fee payment at NutriPATH.



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