

## Applied Analytical Laboratory: Research Notes

### Practitioner Notice

#### Urine pyrrole test: Biomarker of severity of oxidative stress

**Research shows Urobilinogen interferes with pyrrole test results.**

**AAL testing distinguishes between urine pyrrole and urobilinogen levels.**

**Elevated urine pyrroles** are indicative of elevated oxidative stress. It is important to identify any potential cause of increased **oxidative stress** and to work on limiting or reducing these stressors. Some major stressors to look for are:

√	Exposure to environmental toxins
√	Dietary factors (e.g. food intolerances)
√	Untreated ongoing inflammation
√	Increased psychosocial stress (e.g. major life event, trauma)
√	Recent illness
√	Genetic predisposition (reduced/impaired antioxidant defence mechanisms)

All urinary pyrrole test results are useful – not just the elevated ones. AAL also provide you with the results of numbers of other markers to assist in differential diagnosis.

Here is a summary of information on the relationship between the **bilirubin** and **urobilinogen**:

↑ Urobilinogen	Cirrhosis (alcoholic, chemical, viral), or severe infection, increased RBC destruction or ecchymosis, hematoma, pulmonary infarction
↓ Urobilinogen	Gallstones, biliary obstruction or severe infection, pancreatic cancer, certain medication.
↑ Urobilinogen	Liver disease
↑ Bilirubin	
↑ Urobilinogen	Haemolytic anaemia
↓ Bilirubin	
↓ Urobilinogen	Biliary obstruction
↑ Bilirubin	

It is important to consider any other markers that may influence the clinical picture, including urine **protein, glucose, ketone, blood, leukocytes, pH, specific gravity** and **nitrites**. We will provide results of any abnormal levels of these markers.

**It is now clear that Urobilinogen interferes with urinary pyrrole test results.** It is critical that the laboratory testing for urine pyrroles can, clearly and reliably, distinguish between these two markers and provide you with results for each.

*To guarantee your patients' safety it is essential their samples are sent to Applied Analytical Laboratories as per request.*

**Please use the attached request form and ensure the collection centre complies with where you require the testing to be done.** We can collect samples from your surgery/practice for a small fee (Brisbane & Gold Coast metro) and we accept 'walk ins' at AAL Meadowbrook (opp. Logan Hospital, next to Logan Heart Centre).

For updates see the Pyrrole website [www.pyrroleurinetest.com](http://www.pyrroleurinetest.com)

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