



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

Applied Analytical Laboratories

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