

LABORATORY GUIDE

2023

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ABOUT US

BioScan Laboratories is a reputable diagnostic laboratory located in North London. Our laboratory is proficient in conducting a wide spectrum of routine medical tests, in addition to specialised tests carried out in collaboration with accredited laboratories across the UK.

Our commitment lies in upholding the highest standards of professionalism and ethical conduct in all the services we offer to our valued customers. As a medically led organisation, patient well-being is at the forefront of our mission. We continuously strive to enhance our operational proficiency, striving to offer accessible and comprehensive diagnostic support to our clientele.

Here are our key principles:

- 1. **Patient-Centric Approach:** We are wholly dedicated to delivering a professional and patient-centric service to every individual under our care.
- 2. **Integrated Service Delivery:** We embrace a coordinated and integrated approach in delivering our services, ensuring seamless collaboration.
- 3. **Efficiency and Timeliness**: Our aim is to achieve, and where possible, improve our published turnaround times, ensuring prompt results.
- 4. Accessibility: We prioritise easy access to information about our services, making resources and services accessible to all.
- 5. **Technical Excellence:** We invest in technical and operational excellence, boasting an extensive test repertoire that guarantees access to cutting-edge laboratory services.
- 6. **Safety:** Results are returned in a secure and safe manner, prioritising data protection and confidentiality.
- 7. **Resilience:** Even in the face of external disruptions beyond our control, we make every effort to provide uninterrupted service.
- 8. **Staff Development:** We are committed to enhancing our staff's expertise through quality training and coaching, fostering their professional growth.
- 9. **Customer Feedback:** We actively seek and listen to customer feedback, promptly addressing any issues that arise.
- 10. **Continuous Improvement:** When our service delivery is adversely affected, we diligently review and refine our procedures to attain the highest standards.
- 11. Feedback Loop: We actively solicit feedback from our customers to perpetually enhance our services.

At BioScan Laboratories, our dedication to excellence ensures that our patients and clients receive top-tier diagnostic services with the utmost care and professionalism.



VISION & VALUES

OUR MISSION

To provide an accurate and reliable platform where we offer the best quality customised laboratory diagnostic services in line with CQC and UKAS standards for our clients to make the best decisions about possible treatments for their patients.

OUR VISION

To become a medical laboratory of the UK where we provide the most rapid diagnosis support beyond the expectations of our clients with our advanced diagnostic services with high-grade international standards and our increasingly spreading and developing service network.

OUR VALUES

Quality: We strive to provide every client with high quality products and services.

Accountability and Honesty: We deliver our promises in essence of the way we do business as of being transparent and honest and always fulfil our responsibilities.

Innovation: We are progressive and innovative by constantly seeking ways to enhance patient care.

Continuous Development: We are committed to continuous improvement and professional development.



GENERAL INFORMATION

We pride ourselves on the positive difference we make to people by providing reliable, effective and timely diagnostic information. Our laboratory is in the process of UKAS accreditation and together with our extensive network of accredited laboratories offers different types of routine and specialised tests in all disciplines. These include:

- Haematology
- Biochemistry
- Microbiology
- Endocrinology
- Virology, Hepatitis and HIV
- Testing for COVID-19 (SARS-CoV-2)
- Genetics
- Vitamins and Nutrition
- Cervical Screening
- Reproductive Health
- Andrology
- Sexual Health
- Immunology
- Tumour Markers
- Allergy
- Drugs of Abuse/Alcohol
- Occupational Health
- Histopathology

This Laboratory Guide is designed to give you an easy-to-use reference for the most regularly requested services, pathology profiles and tests. If you are not able to find details for tests and services, please contact the laboratory. We continue to develop a wide range of test and patient services and our aim is to offer commitment to customer service, strong working relationships, help and support for referring doctors and their practices.

COMPLAINTS POLICY

Where a doctor or patient needs to raise a complaint, they should contact <u>info@bioscanlab.co.uk</u> giving details of the complaint. The information forwarded will be treated as confidential and investigated fully. This process will link into Quality Management procedure for incident investigation. Corrective and preventative actions will be introduced where indicated.



GENERAL INFORMATION

PATHOLOGY CONSUMABLES

We may be able to help you order supplies including sample tubes, urine pots, needles and swabs, as well as the cards you need to mark samples as urgent or high risk. Additionally, we can help with all the materials you need to package. To order consumables contact us on info@bioscanlab.co.uk.

FEES FOR PATHOLOGY

Fees can be paid directly by patients or by the practice, clinic or the requesting organisation. A payment instruction clearly identifying to whom invoices need to be sent must be given with each patient's request.

Receipts for insurance purposes are sent, if requested. Patients visiting BioScan Laboratory for sample taking can settle their pathology fees at the time of their visit. A credit/administration fee is raised for invoices sent to patients.

PROTECTION OF PERSONALLY IDENTIFIABLE INFORMATION

The General Data Protection Regulation (GDPR) came in to force in May 2018 and has had a significant impact upon the way that personal data is managed; placing legal requirements upon data processors and controllers to process that data lawfully and fairly, on the basis of the data subject's consent or another specified basis and report when breaches of the regulation do occur. This has impacted the way many businesses operate and is not restricted to the healthcare sector. The GDPR requirements have been implemented within the context of a mature ISO 27001 Information Security Management System – the globally accepted standard by which information is secured. This ensures that senior management have regular visibility of the threats to the confidentiality, availability and integrity of the information that we process, and are able to steer the efforts of their teams to provide an efficient service that places the confidentiality of our customers and their patients at the heart of everything we do. In order to support our customers compliance with the regulation and as a part of a wider GDPR compliance project BioScan Lab has updated its standard terms and conditions to include revised data processing clauses, which are mandatory when providing personal data to another organisation.



GENERAL INFORMATION

QUALITY ASSURANCE

Our Quality Management System builds upon the concepts of quality control and quality assurance providing an opportunity to deliver consistent, high-quality and cost-effective service to our clients. In addition, our quality program enhances our ability to meet and exceed the requirements of regulatory/ accreditation agencies and provide quality service to our customers.

The policies, processes, and procedures associated with the "Quality Management System" can be applied to all operations in the path of workflow (eg, pre-analytical, analytical, and post analytical). Performance is measured through constant monitoring of activities in the path of workflow and comparing performance through benchmarking internal and external quality indicators and proficiency testing. The referral laboratories in our network are ISO 15189 accredited where possible or of equal accreditation status. Details of the laboratories are available from on request.

SAMPLING PROCEDURES

Preparing to take samples

In order to take a patient's blood, or any other bodily sample, it is necessary to obtain the patient's valid consent.

In each case, it's the responsibility of the clinician to ensure that the patient understands the reason for making the request for an examination and the range of tests that may be involved. Those reasons for investigation should be conveyed clearly to those undertaking the examination.

Patients can give consent orally or in writing, or they may give non-verbal consent by agreeing to the proposed examination or treatment, so long as they understand the treatment or examination about to take place, for example, by asking the patient to hold out their arm to have their blood sample taken.



TAKING SAMPLES

The expiry date of all primary specimen containers and transport media must be checked prior to use to ensure they are in-date. When taking samples, follow local infection prevention and control guidelines. Please make sure you use the correct tubes or containers, and fill them to the line indicated. Be sure to take samples in the correct order, if applicable, and always mix samples gently.

Order of Draw: Blood collection tubes must be drawn in a specific order to avoid cross-contamination of additives between tubes. The recommended order of draw is:

- 1. First blood culture bottle or tube (yellow or yellow-black top)
- 2. Second coagulation tube (light blue top).
- 3. Third non-additive tube (red top)
- 4. Last draw additive tubes in this order:
 - SST (red-grey or gold top). Contains a gel separator and clot activator.
 - Sodium heparin (dark green top)
 - PST (dark green green top with gold rim). Contains lithium heparin anticoagulant and a gel separator.
 - EDTA (lavender top)
 - Oxalate/fluoride (light grey top) or other additives

NOTE: Tubes with additives must be thoroughly mixed. Clotting or erroneous test results may be obtained when the blood is not thoroughly mixed with the additive.



BLOOD SAMPLES TYPE

Sample type	Vacutainer	Anticoagulant	Capacity
А	Lavender	EDTA	4ml/10ml*
В	Gold	SST/Gel	5ml
С	Light Blue	Citrate	4.5ml
F	Red	None	6ml
G	Grey	Fluoride oxalate	2ml, 4ml
н	Green	Lithium heparin	6ml
К	Dark blue	Sodium heparin	7ml



OTHER SAMPLES

Instructions for sample collection you can find our "Sample Collection Guide" on www.bioscanlab.co.uk

BC- Blood culture bottle: contact laboratory

- J Contact laboratory for advice on sample taking
- X Test by appointment
- RF Random Faeces
- LF Faecal Collection
- RU Random Urine
- FCRU First Catch Random Urine (for DL12/Chlamydia, etc.)
- MSU Mid-Stream Urine

Request Forms and Labelling Samples

Request forms which clinicians should complete are available on our website https://www.bioscanlab.co.uk or at the back of this handbook.

To comply with regulatory requirements and to keep all patients safe, we need the forms to be completed fully and the samples to be labelled correctly for each patient. If we don't have all the right information from you, we may not be able to process your sample.

The form must also contain the identification of the requester including full address and email to receive the results.

URGENT SAMPLES: if your sample is urgent, send us a red 'urgent' card along with your request form, or package the sample in a red 'urgent' bag. INFECTIOUS SAMPLES: We use 'high risk' stickers for infectious samples.



OTHER SAMPLES

Sample Labelling

Please label samples in the presence of the patient, to avoid errors. Please label all samples and make sure you include:

- Patient's forename and surname*
- Patient's date of birth (their age is not enough)*
- ID / Hospital number*
- Date and time of collection
- The sample taker's initials
- Sample site or description of the sample (for Microbiology, Histopathology and Cytopathology)

Information marked with an * is the minimum acceptable patient identifiers and must be exactly the same on both the request form and the sample. There are extra requirements for Blood Transfusion, Microbiology, Histopathology, Cytopathology and 24 hour urine tests. So please take a look at those sections to see exactly what to do.

We will not be able to process samples when there are:

- Unlabelled samples
- Incomplete the information on the samples or request forms
- Discrepancies between the information on the sample and request forms

Requesting Extra Tests

Most samples received in the laboratory are kept for one week. If sample type, stability and volume allow, further testing can be requested by email to info@bioscanlab.co.uk Please email the add-on test required together with patient details, laboratory number and collection date. Further information may be required to ensure the correct test can be performed in the correct sample.



OTHER SAMPLES

Sample Packing and Transport

BioScan Lab uses ISO accredited medical couriers to collect samples from clinics. Samples may need to be transported for subsequent processing and testing. Transport systems will be various and cover both long and short distances. Samples need to be collected and packed into appropriate sample containers provided by the laboratory in order to maintain integrity of the sample(s). Attention needs to be given to temperature, special transport containers and time limitations.

Clinics, practices and laboratories who are posting or transporting samples by air, sea, rail and road between local, regional and reference laboratories, or between laboratories in other countries, must adhere to a number of regulations. These regulations are designed to deal with transportation accidents and spills, reduce biohazards and keep samples intact for testing. Regulations are given by several sources including:

- National transport regulations
- IATA
- Rail and road traffic agencies
- Postal services

Compliance is mandatory in order to reduce risk to couriers, carrier, laboratory staff and passengers. Sample transport requirements are based on the category of samples being transported. Infectious substances are classified as Category A or Category B.

BioScan Lab does not arrange for transport of Category A samples (infectious substances capable of causing permanent disability or life threatening or fatal disease to humans or animals). Instruction and packaging for Category B is provided, covering Biological Substances, UN number UN 3373.





Packaging Requirements

There are specific packaging instructions and labelling requirements requiring triple packaging.

- Primary leak-proof container tube or vial containing the sample
- Secondary watertight container, with absorbent material, intended to protect the primary container
- Outer container protects the secondary container
- For suspected/confirmed Hazard Group 3 Organisms (e.g. HIV, TB, Hep B&C & Malaria) apply high risk stickers on the sample and request form and double bag the samples.
- For suspected/confirmed Hazard Group 4 Organisms that cause Haemorrhagic Fevers (e.g. Ebola, Lassa) contact National Fever Service for advice.

There are specific packaging instructions for frozen samples requiring shipment using BioFreeze bottles, or Dry Ice. For information please contact the laboratory on <u>info@bioscanlab.co.uk</u>.

Sample Stability

For information regarding the sample stability and other factors affecting the results for each analyte, please contact <u>info@bioscanlab.co.uk</u>

Sample Acceptance and Rejection

If we need to reject a sample for any reason, we'll get in touch with you to explain the problem and we'll add a comment to the patient record. Finally, we'll cancel the test, and ask you to re-order and send another sample.



Sample Issue	Actions taken and corrective actions required
Mislabelled, Unlabelled, Leaked, Broken, or patient sample placed in a sample bag that belongs to another patient	 Samples are rejected and disposed of New sample must be collected Except in exceptional circumstances for 'Unrepeatable samples*'
Sample and request form ID mismatch	Request form does not match sample or historical recordSamples are rejected and disposed ofNew sample must be collected
Incorrect transportation and storage conditions	 Samples are rejected, disposed of and must be recollected New sample must be collected and immediately after: Placed on ice immediately after collection Protected from light Kept warm Frozen Appropriate preservative
Clotted, Too old to process	 Samples are rejected, disposed of and must be recollected Tests that rely on free cells e.g. FBC cannot be performed on clotted samples
Incorrect blood tube, Incorrect containers	Samples are rejected, disposed of and patient must be re- bled.
Lipaemic Haemolysed Icteric	 Some tests may be performed Results will be released with an advisory comment Samples may have to be recollected to perform the missing tests

If any of the above applies to a sample that can't be repeated, such as a CSF sample or biopsy, a senior member of our team must discuss it with you. In these instances, we'll decide whether to process or reject the sample on a case by case basis, and we'll report any breaks in protocol for quality and patient safety purposes.



SAMPLES ISSUES

Unrepeatable samples:

- Histology samples
- Cerebra-spinal fluid
- Samples obtained by invasive procedures
- Blood cultures
- Time dependent samples

Department Specific Rejection Reasons

- Sample Reception will not accept samples packaged with needles of any kind.
- Haematology cannot accept frozen whole blood for testing.
- Coagulation cannot accept over or under filled samples for testing.
- Coagulation cannot accept previously frozen samples that have thawed in transit.
- Biochemistry cannot accept previously frozen samples that have thawed in transit.
- Biochemistry cannot accept samples that display antibody interference.
- Biochemistry cannot accept samples that have had separation delays/un-centrifuged samples that have been stored in the fridge.
- Biochemistry cannot accept paraprotein resulting in viscous samples.
- Biochemistry cannot accept CSF protein that is blood stained.
- Immunology cannot accept TBQ kits that:
 - Do not contain all of the appropriate tubes.
 - Are incubated for more than the specified 16 hours.
 - Have passed the incubation time period.
 - Are over or under filled.
- Microbiology cannot accept samples in non-sterile containers or in formalin.
- Referrals cannot accept samples without three points of identification for DRP testing.
- Referrals cannot accept samples that are not labelled by hand for blood group testing.
- Molecular Pathology cannot accept samples for Haemophilia testing without informed consent.
- Cervical Cytology cannot accept over or under filled samples for testing.
- Cervical Cytology cannot accept samples received within three months of the previous test in order to allow epithelial cells to regenerate.
- Urine cytology cannot accept delayed samples unless they have been refrigerated.



RESULTS & TAT

Receiving the Results

For healthcare providers, we offer more than just remote work; we provide tools for improved efficiency and patient-focused care with our online laboratory management system. Our analytics, charts, and statistics help visualize finances and operations while maintaining the focus on the patient. For patients, we help you manage your medical records with ease. Our understanding of healthcare and analytics enables us to help you manage your health more effectively.

TAT

The turnaround times stated in this handbook are based on working days. Please note that turnaround times for some of the tests we refer out may be based on a 5 day working week. The TAT targets are minimum estimates for analytical processing times and can be longer due to operational reasons.

We can send reports by email and electronic link directly into many patient by online management systems

Don't hesitate to contact us if you need more information. We can send reports by email and electronic link directly into many patient by online management systems.

PATIENT REFERENCE RANGES

Patient reference ranges mostly can be found on result reports. If reference ranges for each test can be requested by emailing.

Where appropriate, we include reference ranges on result reports. The reference range and reporting units, including any interpretive information, specific to the methodology we've used and the patient's gender and age. We flag when results are outside of the reference range. Where results fall within alert or critical intervals, a clinician or other authorised health professional will be notified.

Please contact laboratory on info@bioscanlab.co.uk if you require details on reference range establishment and/or measurement uncertainty.



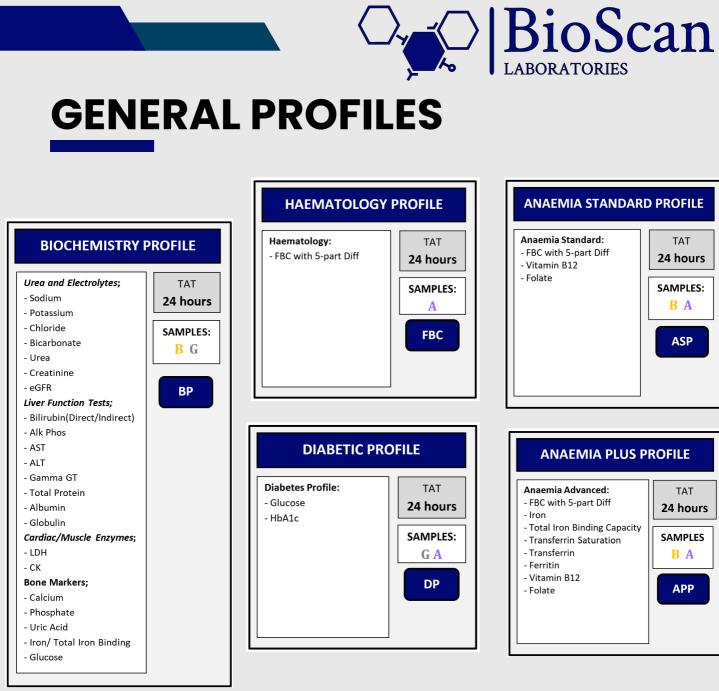
CLINICAL INFORMATION

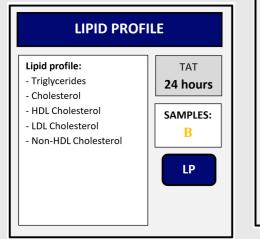
Each patient requesting event is unique. Informed clinical advice is available on request from the laboratory. Please contact the laboratory by phone at 0333 050 8883 or by email at: <u>info@bioscanlab.co.uk</u>.

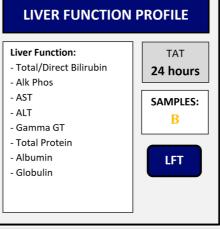
General clinical advice for service users include the following:

- Provide the time of sampling especially for dynamic function testing.
- Fasting status is important for some tests such as glucose and lipid profiles in patients with mixed dyslipidaemia.
- Advice is available for when best to repeat a test, and what degree of change in a test result may be clinically significant. Please contact the laboratory by phone at 0333 050 8883 or by email at: <u>info@bioscanlab.co.uk</u>.

TAT targets are minimum estimates for analytical processing times and can be longer due to operational reasons.



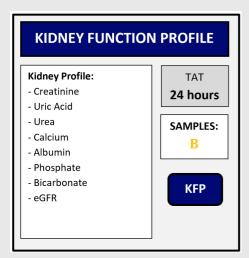




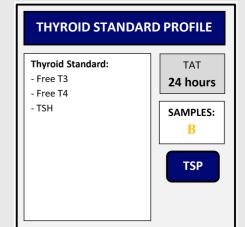


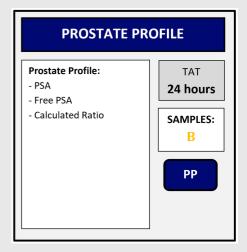


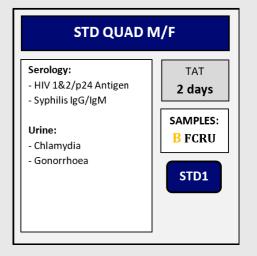
GENERAL PROFILES

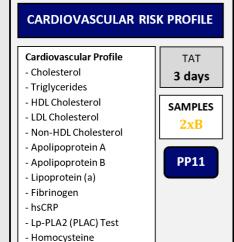


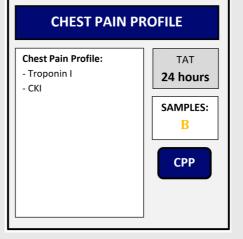
THYROID ADVANCED PROFILEThyroid Advanced:
- Free T3
- Free T4
- TSH
- Thyroglobulin Abs
- Thyroid PeroxidaseTAT
2 daysSAMPLES:
2xBTHAB

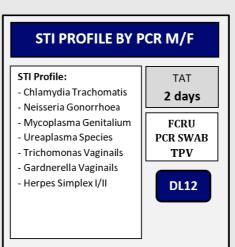






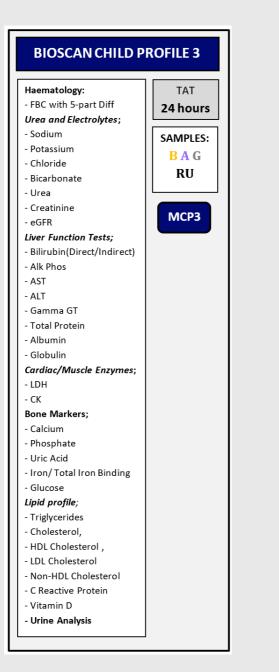




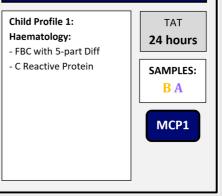


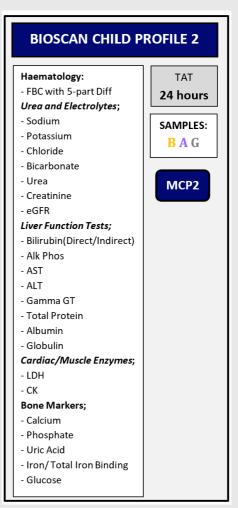


CHILD PROFILES

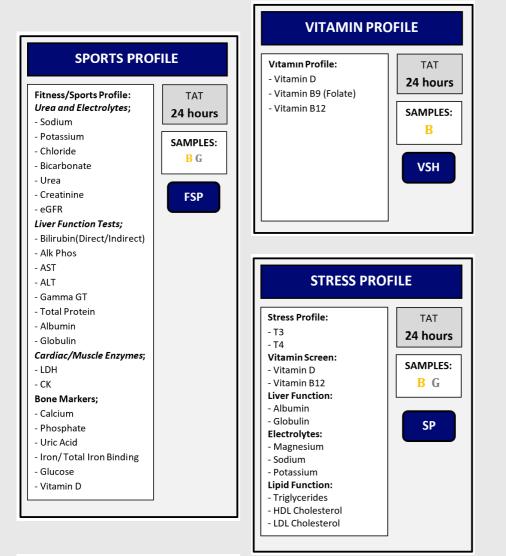


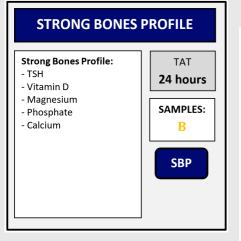
BIOSCAN CHILD PROFILE 1

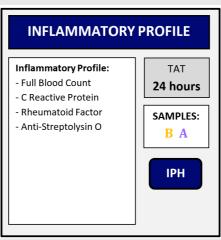






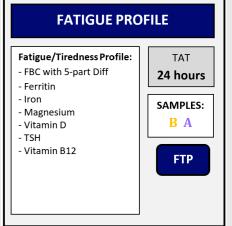


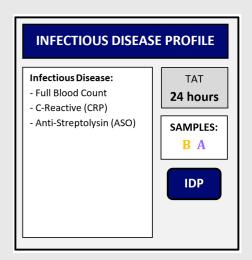




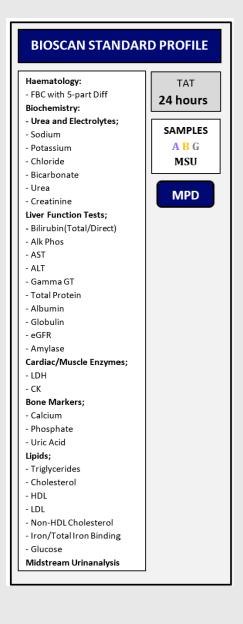
SLEEP DISORDER PROFILE Sleep Profile: TAT - FBC with 5-part Diff 24 hours - Free T4 - Free T3 SAMPLES: - TSH Vitamin Screen: **B** A - Vitamin D - Total Iron Binding SDP - Ferritin Liver function: - Bilirubin Direct/Indirect - AST - ALT - C-Reactive Protein **Urea & Electrolytes:** - Sodium - Potassium - Chloride - Bicarbonate - Creatinine

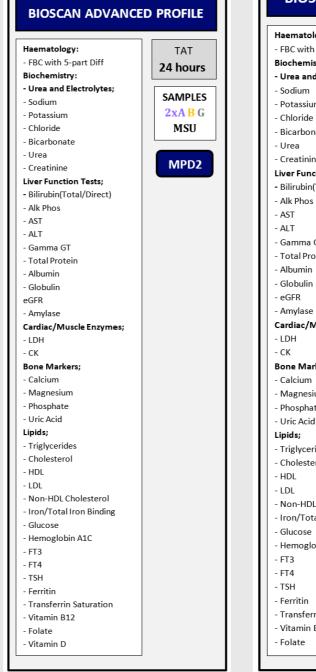
BioScan LABORATORIES





BIOSCAN PROFILES





BIOSCAN MENTAL HEALTH Haematology: TAT - FBC with 5-part Diff 24 hours Biochemistry: - Urea and Electrolytes; SAMPLES 2xABG - Potassium - Bicarbonate MPP - Creatinine Liver Function Tests; - Bilirubin(Total/Direct) - Gamma GT - Total Protein Cardiac/Muscle Enzymes; Bone Markers; - Magnesium - Phosphate - Uric Acid - Triglycerides - Cholesterol - Non-HDL Cholesterol - Iron/Total Iron Binding - Hemoglobin A1C - Transferrin Saturation - Vitamin B12

BioScan LABORATORIES



M/F PROFILES

BIOSCAN PREMIUM FEMALE				
Haematology: - FBC with 5-part Diff	TAT			
Biochemistry:	1 day			
Urea and Electrolytes - Sodium, Potassium, Chloride	SAMPLES			
- Bicarbonate, Urea	2xB			
- Creatinine	2xA			
- eGFR Liver Function Tests;	G MSU			
- Bilirubin	MISU			
- Alk Phos	MPD4F			
- AST, ALT - Gamma GT				
- Total Protein				
- Albumin - Globulin				
Cardiac/Muscle Enzymes;				
- LDH				
- CK Bone Markers;				
- Calcium				
- Magnesium				
- Phosphate - Uric Acid				
Lipids;				
- Triglycerides				
- Cholesterol, HDL, LDL, - Non-HDL Cholesterol				
- Iron/Total Iron Binding				
- Glucose				
- HbA1c				
- FT3, FT4, TSH - Ferritin				
- Transferrin				
- Transferrin Saturation				
- Vitamin B12 - Folate				
- Vitamin D (25-OH)				
- RF, CRP				
Female Hormone Profile: - LH, FSH				
- Prolactin Oestradiol (17-Beta)				
Midstream Urinanalysis				

BIOSCAN PREMIUM MALE

