MELBOURNE PATHOLOGY
Quality is in our DNA

MELANIE SMITH

Lab ID **380327860** DOB **02/07/1993 (28 Yrs FEMALE)**

Referrer	**Dr Nidham Oda**	Your ref.	**14417000**
Address	KILMORE MEDICAL PRACTICE 105 POWLETT ST KILMORE VIC 3764	Address	1-5 BURGESS RD KILMORE VIC 3764
Phone	57810088	Phone	0407808038

Copy to

Requested 02/02/2022
Collected 02/02/2022 00:00 AEDT
Received 03/02/2022 15:43 AEDT

Test Name	Result	Units	Reference Interval
S Iron:	21	umol/L	5 - 30 #
S Transferrin:	2.5	g/L	2.0 - 4.8 #
Transferrin Saturation:	34	%	5 - 35 #
● S Ferritin:	**169 H**	ng/mL	30 - 150 #

Comments

NOTE: Change of pregnancy-related reference intervals for ferritin effective from 12/06/2017. A ferritin concentration <30 µg/L is considered diagnostic of iron deficiency at any stage of pregnancy.
Further information is available at https://www.rcpa.edu.au/getattachment/ff74d1a3-f19e-4691-8068-4daab34d576b/Iron-Studies-Standardised-Reporting-Protocol.aspx).

Department Supervising Pathologist: Dr Ken Sikaris

MELBOURNE PATHOLOGY NATA NO.:2133

Reported on 04-02-2022 05:47

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THYROID FUNCTION TESTS

Test Name	Result	Units	Reference Interval
TSH (Roche)	1.57	mU/L	0.26 - 3.7 #

Comments

The 2017 American Thyroid Association (ATA) guideline recommends diagnosis of subclinical hypothyroidism in pregnancy when TSH is above the population-based and gestational age-specific reference intervals.

Melbourne Pathology provides population- and gestational age- specific reference intervals for our methods (TSH Roche,FT4&FT3) effective from 02/12/2019.

Gestational Age	TSH (mU/L)	Free T4 (pmol/L)	Free T3 (pmol/L)
3 - 6 weeks	0.59 - 3.9	11.6 - 20.4	3.7 - 5.9
7 - 13 weeks	0.07 - 3.4	10.9 - 22.5	3.2 - 6.8
14 - 27 weeks	0.26 - 3.7	9.5 - 18.3	3.1 - 5.5
28 - 42 weeks	0.31 - 3.9	8.8 - 18.0	2.8 - 5.4

A normal TSH is consistent with an euthyroid state.

Department Supervising Pathologist: Dr Ken Sikaris

MELBOURNE PATHOLOGY NATA NO.:2133

Reported on 04-02-2022 05:47

Test Name	Result	Units	Reference Interval
25-Hydroxy Vitamin D	71	nmol/L	50 - 250

Comments

Vitamin D levels should ideally be above 50 nmol/L in winter and 70 nmol/L in summer. Levels above 75 nmol/L may be desirable in people with osteoporosis or falls.

Department Supervising Pathologist: Dr Ken Sikaris

MELBOURNE PATHOLOGY NATA NO.:2133

Reported on 04-02-2022 07:04

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Test Name	Result	Units	Reference Interval
S Folate:	28.0	nmol/L	>6.0
Holo-transcobalamin:	78	pmol/L	>37
Total Vitamin B12:	276	pmol/L	200 - 700

Comments

High dose biotin (>5 mg/day) may artefactually increase total Vitamin B12 and Folate results obtained by this method. If the patient is taking 5-20 mg/day of biotin, suggest withhold for at least 8 hours before blood test (if taking 300 mg/day, withhold for at least 72 hours).
For clinical enquiries please contact Chemical Pathologist Dr Ken Sikaris on 9287 7720.

HoloTC (Holo-transcobalamin) is a better marker for Vitamin B12 status than the total B12 and this result indicates a normal Vitamin B12 status. Serum total Vitamin B12 measures both inactive (Haptocorrin-bound) and active (Transcolalamin-bound) fractions. Low total Vitamin B12 can be a result of low Haptocorrin-bound fraction which is of no known clinical significance.

Please note: The HoloTC (Holo-transcobalamin) method has changed from Abbott (Active B12) to Roche, effective 01/12/2020. The Roche method is up to 15 pmol/L higher. The reference limits have been changed accordingly.

High dose biotin (>5 mg/day) may artefactually decrease the HoloTC result obtained by this method. If the patient is taking 5-20 mg/day of biotin, suggest withhold for at least 8 hours before blood test (if taking 300 mg/day, withhold for at least 72 hours).
For clinical enquiries please contact Chemical Pathologist Dr Ken Sikaris on 9287 7720.

Department Supervising Pathologist: Dr Ken Sikaris

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Test Name	Result	Units	Reference Interval
S Sodium:	136	mmol/L	134 - 142 #
S Potassium:	3.7	mmol/L	3.4 - 4.8 #
S Chloride:	100	mmol/L	95 - 108 #
S Bicarbonate:	23	mmol/L	18 - 28 #
S Urea:	2.8	mmol/L	1.5 - 5.5 #
S Creatinine:	44	umol/L	30 - 70 #
eGFR	>90		
S Bilirubin:	<3	umol/L	2 - 10 #
S Alkaline Phosphatase:	55	U/L	30 - 100 #
S Gamma-GT:	11	U/L	5 - 30 #
S ALT:	8	U/L	5 - 30 #
S AST:	18	U/L	8 - 30 #
S Total Protein:	66	g/L	60 - 75 #
S Albumin:	36	g/L	27 - 37 #
S Globulin:	30	g/L	23 - 41 #
S Magnesium:	0.76	mmol/L	0.60 - 0.90 #

Comments

eGFR is greater than 90 mL/min/1.73m2. No evidence of kidney disease.

Department Supervising Pathologist: Dr Ken Sikaris

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Test Name	Result	Units	Reference Interval
HAEMOGLOBIN	127	g/L	115 - 150 #
Haematocrit	0.39		0.30 - 0.47 #
Red cell count	4.0	x10^12/L	3.4 - 5.4 #
M.C.V.	96	fL	80 - 102 #
M.C.H.	32	pg	27 - 34 #
M.C.H.C.	327	g/L	310 - 360 #
RDW	12.5		11 - 17
PLATELETS	325	x 10^9/L	150 - 450 #
WHITE CELL COUNT	11.7	x10^9/L	4.2 - 17.0 #
Neutrophils	8.9	x10^9/L	2.0 - 14.0 #
Lymphocytes	2.0	x10^9/L	1.0 - 4.0 #
Monocytes	0.8	x10^9/L	0 - 1.0 #
Eosinophils	0.0	x10^9/L	0 - 0.5 #
Basophils	0.0	x10^9/L	0 - 0.3 #

Dept Supervising Pathologist: Dr Ellen Maxwell

MELBOURNE PATHOLOGY NATA NO.:2133

Reported on 03-02-2022 16:25

MELBOURNE PATHOLOGY

Ms Melanie Smith
1-5 Burgess Rd
Kilmore VIC 3764

DOB	02/07/1993 (28 Yrs)
Sex	Female
Requested	2 Feb 2022
Collected	02 Feb 2022
Reported	04 Feb 2022, 07:09 am
Referred by	Dr Nidham Oda
Phone	0407808038
Lab ID	380327860

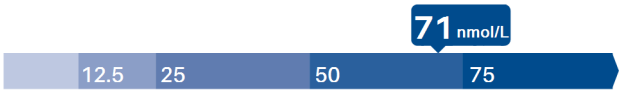
Melanie Smith

Focus report on Vitamin D

1 Tell me about Vitamin D testing

- Vitamin D is a hormone used by the human body to create and maintain healthy bones
- It helps to prevent conditions such as osteoporosis
- Ongoing research suggests the low levels of vitamin D may also be linked to an increased risk of diabetes, autoimmune diseases, multiple sclerosis and heart disease
- More than 90% of our vitamin D is created through the skin's exposure to direct sunlight, that is, skin that is not protected by clothing, sunscreen or glass.
- In Australia, vitamin D deficiency is more common in southern states, where there are fewer hours of sunlight during winter. The increase in vitamin D deficiency has been associated with the success of the 'Sun Smart' campaign, encouraging us to decrease our exposure to the sun's harmful UV rays
- The challenge for all Australians is to get enough 'safe' sun exposure, without increasing their risk of skin cancer.

2 Your result

TEST NAME	YOUR RESULT	WHAT ARE WE TESTING FOR?
Vitamin D Reference 71 nmol/L		The liver partially activates vitamin D through a process known as hydroxylation. This test measures the levels of 25 hydroxylated vitamin D.

3 What next?

Your result is borderline:

Get more safe sunlight

Patients with borderline results should consider increasing their exposure to safe sunlight.

If your result is healthy:

Well done!

Keep up the good work, but make sure to remain 'sun smart'.

If your result is deficient:

Talk to your doctor

If your result is in the deficient range, it is unlikely you will increase your vitamin D significantly without supplements.

Please see your doctor to discuss what supplements you should take. Also consider increasing your exposure to safe sunlight.

Safe Sunlight

Safe sunlight involves getting direct UV sun exposure on exposed parts of your skin (eg face and arms) on either side of the peak UV periods of the day.

UV does not pass through glass, so Vitamin D cannot be generated by sitting indoors.

In Victoria, people with moderately fair skin can get about 1/3 of their vitamin D requirements by getting the following exposure on their bare face and arms (i.e. without sunscreen).

Best time for safe sunlight (Melbourne)

Dec - Jan	Jul - Aug
Before 10am or after 2pm	12 midday
6 - 8 minutes	25 minutes

4 More information

More information can be found at
www.labtestsonline.com.au or http://www.cancer.org.au/preventing-cancer/sun-protection/vitamin-d

Other tests were ordered with this episode. The results have been provided to the doctor, however they are not available as a detailed patient report at this stage.

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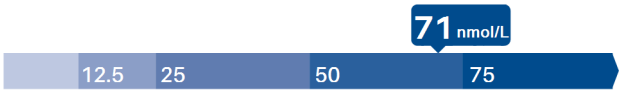
Vitamin D Reference 71 nmol/L		The liver partially activates vitamin D through a process known as hydroxylation. This test measures the levels of 25 hydroxylated vitamin D.

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