

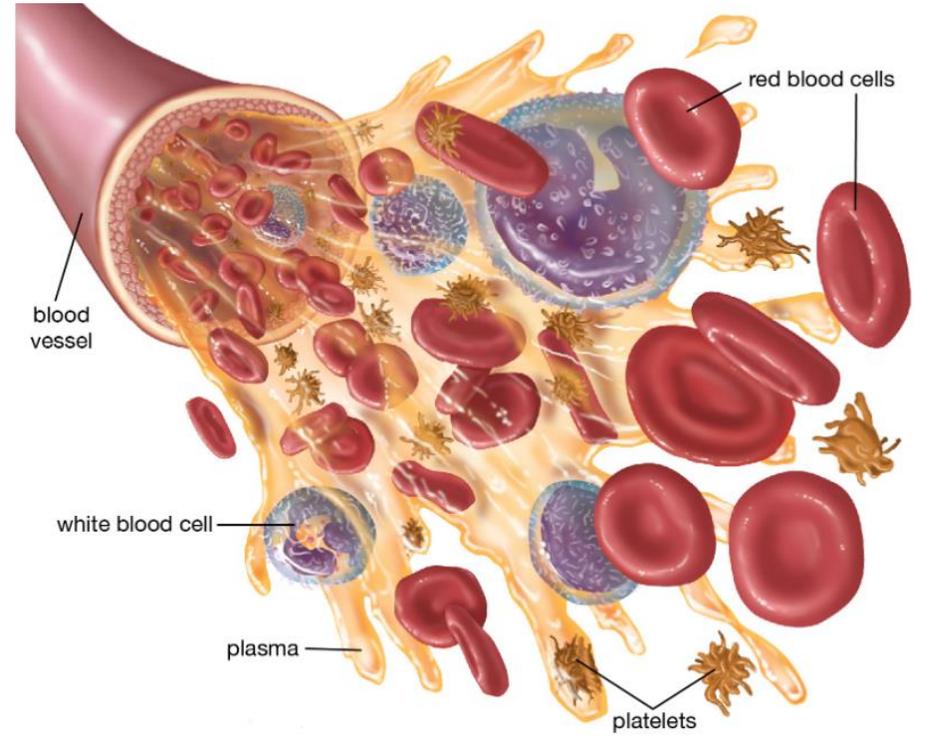
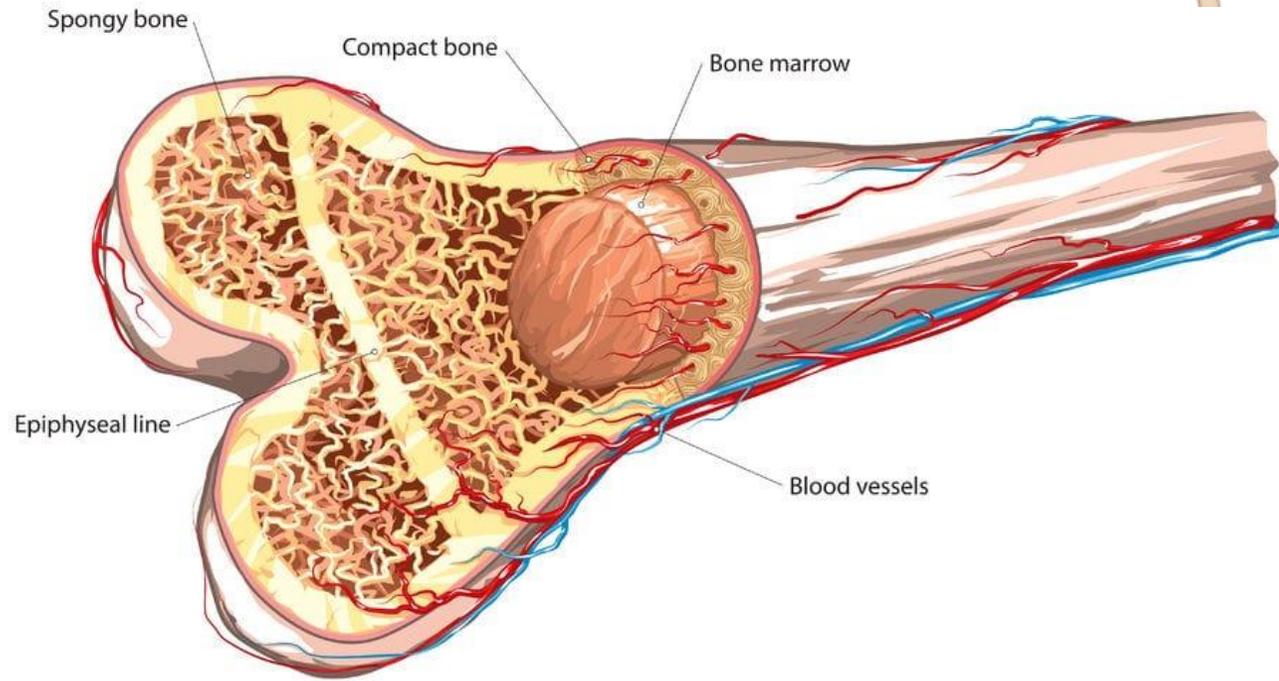
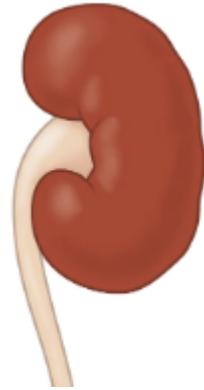
# Label

البرنامج التدريبي لإعداد الصيادلة

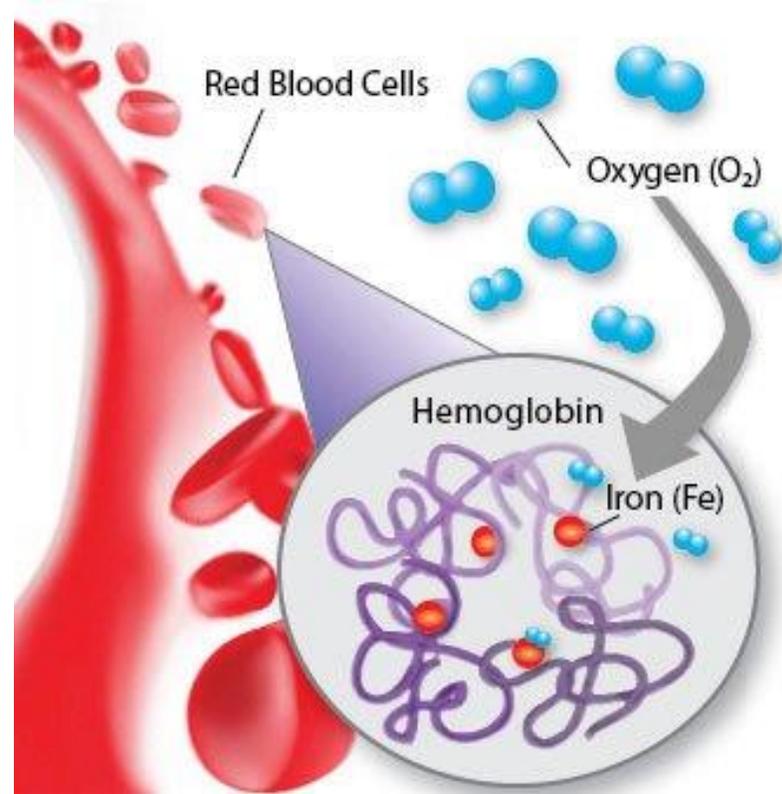
# الأنيميا

- تعريفها.
- أنواعها.

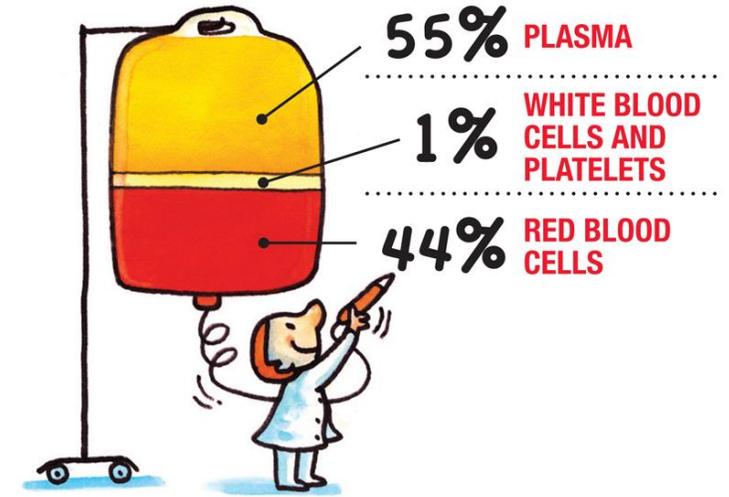
# المصنع



# خلايا الدم الحمراء



- Red blood cell (RBC) count.
- Hemoglobin.
- Hematocrit.
- Red blood cell **indices** provide information on the **physical features** :
  - Mean corpuscular volume (MCV).
  - Mean corpuscular hemoglobin (MCH).
  - Mean corpuscular hemoglobin concentration (MCHC).
  - Red cell distribution width (RDW).

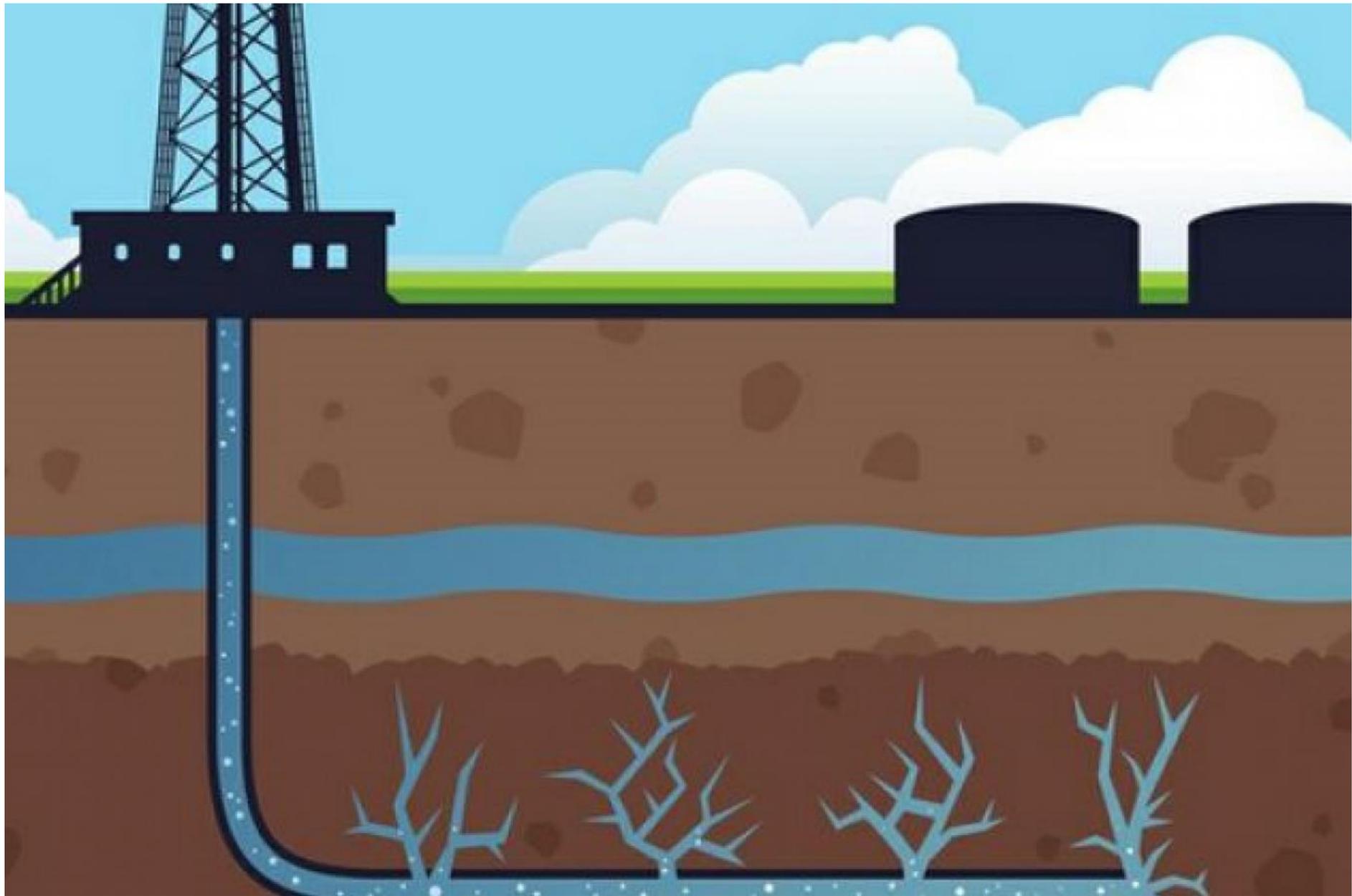


TESTS	RESULT	FLAG	UNITS	REFERENCE INTERVAL	LAB
CBC With Differential/Platelet					
WBC	5.7		x10E3/uL	4.0-10.5	01
RBC	5.27		x10E6/uL	4.10-5.60	01
Hemoglobin	15.4		g/dL	12.5-17.0	01
Hematocrit	44.1		%	36.0-50.0	01
MCV	84		fL	80-98	01
MCH	29.2		pg	27.0-34.0	01
MCHC	34.9		g/dL	32.0-36.0	01
RDW	13.7		%	11.7-15.0	01

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Hematocrit	44.1		%	36.0-50.0	01
MCV	84		fL	80-98	01
MCH	29.2		pg	27.0-34.0	01
MCHC	34.9		g/dL	32.0-36.0	01
RDW	13.7		%	11.7-15.0	01
Platelets	268		x10E3/uL	140-415	01
Neutrophils	47		%	40-74	01
Lymphs	46		%	14-46	01
Monocytes	6		%	4-13	01
Eos	1		%	0-7	01
Basos	0		%	0-3	01
Neutrophils (Absolute)	2.6		x10E3/uL	1.8-7.8	01
Lymphs (Absolute)	2.6		x10E3/uL	0.7-4.5	01
Monocytes (Absolute)	0.4		x10E3/uL	0.1-1.0	01
Eos (Absolute)	0.1		x10E3/uL	0.0-0.4	01
Baso (Absolute)	0.0		x10E3/uL	0.0-0.2	01
Immature Granulocytes	0		%	0-1	01
Immature Grans (Abs)	0.0		x10E3/uL	0.0-0.1	01

# الأنيميا

- الأنواع.
- الأسباب.
- العلاج.
- علاقة نقصان الحديد.
- مميزات أنيميا نقص الحديد.



# أسباب نقص الحديد

- Inadequate intake of dietary iron .
- Inadequate iron utilization during chronic and inflammatory diseases.
- Impaired iron absorption.
- Excess iron loss.

# فحوصات الأنيميا

- CBC
- RBCs count
- Hemoglobin
- Hematocrit
- MCV
- MCH
- MCHC
- RDW

Lab Number:

1704480 - 21

minnan : 2017-03-25 16:55:27

## CBC

Test	Result	Unit	Reference Range
<b>Hemogram</b>			
Hemoglobin Level	13.2	g/dl	( 13 - 17 )
Hematocrit	42.5	%	( 41 - 50 )
Red Cell Count	5.8	millions/ul	( 4.5 - 5.5 )
M.C.V.	73.3	fl	( 76 - 100 )
M.C.H.	22.8	pg	( 26 - 34 )
M.C.H.C.	31.1	g/dL	( 31 - 37 )
RDW	13.9	%	( 11.5 - 14.5 )
<b>White Cell Count</b>	<b>8.14</b>	<b>x10<sup>3</sup>/ul</b>	<b>( 4 - 11 )</b>

	Relative	Absolute
Neutrophils Seg.	56 % ( 50 - 70 )	4558 ( 2000 - 7700 )
Neutrophils Band	3 % ( 1 - 6 )	244 ( 40 - 660 )
Lymphocytes	27 % ( 20 - 40 )	2198 ( 800 - 4400 )
Monocytes	8 % ( 2 - 8 )	651 ( 80 - 880 )
Eosinophils	6 % ( 1 - 6 )	488 ( 40 - 660 )
Basophils	0 % ( 0 - 1 )	0 ( 0 - 110 )
<b>Platelets Count</b>	<b>197</b>	<b>x10<sup>3</sup>/ul</b> ( 150 - 450 )

-Erythrocytosis with microcytosis and hypochromia...

Test	Date	Time	Result	Reference	Units
WBC	2/25/15	0350	7.8	(3.5-11.0)	10 <sup>3</sup> /uL
RBC	2/25/15	0350	2.66 L	(3.50-5.50)	10 <sup>6</sup> /uL
HGB	2/25/15	0350	7.7 L	(12.0-15.0)	g/dL
HCT	2/25/15	0350	24.2 # L	(36.0-45.0)	%
MCV	2/25/15	0350	91 #	(79-95)	fL
MCH	2/25/15	0350	29.1	(26.0-33.0)	pg
MCHC	2/25/15	0350	32.0	(32.0-36.0)	g/dL
RDW	2/25/15	0350	16.3 H	(11.0-14.0)	%
PLT	2/25/15	0350	172	(120-400)	THD/uL
MPV	2/25/15	0350	9.4	(7.4-10.4)	fL
Neutrophils %	2/25/15	0350	73.4 H	(34-64)	%
Lymphocytes %	2/25/15	0350	16.6 L	(19-48)	%
Monocytes %	2/25/15	0350	6.6	(3-9)	
Eosinophils %	2/25/15	0350	2.4	(0-7)	%
Basophils %	2/25/15	0350	1.0	(0-2)	%
Neutrophils #	2/25/15	0350	5.7 H	(2.5-5.6)	THD/uL
Lymphocytes #	2/25/15	0350	1.3	(0.8-3.5)	10 <sup>3</sup> /uL
Monocytes #	2/25/15	0350	0.5	(0.2-1.0)	THD/uL
Eosinophils #	2/25/15	0350	0.2	(0-0.5)	THD/uL
Basophils #	2/25/15	0350	0.1	(0-0.1)	THD/uL

### COMPLETE BLOOD PICTURE

			<u>Normal values</u>
Haemoglobin	:	10.5	gm% 70/100 (F. 12 - 16)
R.B.Cs	:	3,600	mill/Cmm (F. 4 - 5.6)
Haematocrit	:	31.70	% (36 - 46)
M.C.V	:	88.06	fl (76 - 96)
M.C.H	:	29.17	pg (26 - 32)
M.C.H.C	:	33.12	g/l (31 - 35)
Platelets count	:	235000	/Cmm (150000 - 400000)
Total W.B.Cs	:	7100	/Cmm (4000 - 11000)

<u>Differential leucocytic count :</u>				
		<u>Normal</u>	<u>Absolute</u>	<u>Per cu. mm</u>
Staff	:	0 %	0	( 200 - 550 )
segmented Neutrophils	:	70 %	4970	( 2500 - 7500 )
Eosinophils	:	3 %	213	( 44 - 400 )
Basophils	:	0 %	0	( 0 - 100 )
Lymphocytes	:	25 %	1775	( 1500 - 4500 )
Monocytes	:	2 %	142	( 200 - 800 )

Thanks.

Signature

# فحوصات الحديد

- Hgb
- Fe
- Ferritin
- Transferrin
- TIBC
- TSAT



## HAEMATOLOGY AND COAGULATION

PARAMETER	RESULT	UNITS	REFERENCE RANGE
WBCs	6.98	10 <sup>3</sup> /uL	(4.0 - 11)
RBCs	3.64	L 10 <sup>6</sup> /uL	(3.8 - 5.0)
Hb	9.7	L g/dL	(12.0 - 15.0)
HT-HCT	29.2	L %	(36.0 - 46.0)
MCV	80.2	L fL	(82-100)
MCH	26.6	L pg	(27.0 - 32.0)
MCHC	33.2	g/dL	(31.5-37.0)
RDW-CV	13.5	%	(11.6 - 14.0)
PLT	363	10 <sup>3</sup> /uL	(140 - 450)
MPV	8.9	fL	(7.0 - 12.0)
PDW	8.8	L fL	(9.8 - 17.8)

## BIOCHEMISTRY

PARAMETER	RESULT	UNITS	REFERENCE RANGE
Lipase	43	IU/L	(8 - 78)
Transferrin	1.55	L g/L	(1.80 - 3.82)
AMYLASE	76	U/L	(25 - 125)
FERRITIN	500	ng/mL	(20 - 300)
HbA1C	4.6	%	(Non Diabetic : 4.0 - 6.0 Diabetic Fair control : 6.0 - 8.0 Diabetic Poor control : > 8.0)
Magnesium	0.96	mmol/L	(0.66 - 1.07)
Iron	2.8	L μmol/L	(9.0 - 30.4)

# مراحل نقصان الحديد

# آثار نقص الحديد

- زيادة أثر الأمراض المزمنة.
- النشاط الجسماني.
- النمو.
- التعلّم.
- الوفاة.