

No.	Group	Age(year)	Volume(ml)	Sperm concentration(10 ⁶ /ml)	Total sperm count	a (%)	b (%)	Progressive motility(%)	c (%)	Total motility(%)	d (%)	Acrosin activity(μ U/106)	Leukocytospermia(10 ⁶ /ml)	WBC(10 ⁹ /L)	Hb	PLT(10 ¹² /ml)	smoking(1:yes,0 no)
2	Normal1	30	4.5	82.4	370.8	19.4	17.5	36.9	18.0	54.9	45.1	100.4	0.5	6.0	158.0	287.0	1
3	Normal2	29	3.0	156.7	470.1	22.0	35.6	57.6	18.6	76.2	23.8	125.5	0.5	6.2	144.0	245.0	0
5	Normal3	27	6.0	191.3	1147.8	23.6	23.1	46.7	15.7	62.4	37.6	110.5	0.6	/	/	/	0
8	Normal4	28	2.5	305.5	763.8	39.1	30.0	69.1	15.2	84.3	15.7	133.0	0.6	5.8	162.0	179.0	0
13	Normal5	27	3.0	183.3	549.9	10.1	27.4	37.5	19.3	56.8	43.2	104.7	0.5	7.9	146.0	200.0	0
18	Normal6	28	4.0	156.7	626.8	10.2	32.2	42.4	22.0	64.4	35.6	102.7	0.9	5.6	132.0	266.0	0
23	Normal7	28	2.5	409.1	1022.8	19.2	31.5	50.7	27.9	78.6	21.4	116.8	0.6	/	/	/	1
33	Normal8	26	2.5	350.7	876.8	15.9	26.5	42.4	28.0	70.4	29.6	100.7	0.9	7.9	145.0	248.0	1
34	Normal9	26	6.0	263.9	1583.4	16.1	37.2	53.3	24.2	77.5	22.5	122.5	0.6	6.8	132.0	209.0	0
46	Normal10	28	3.0	178.0	534.0	19.4	29.9	49.3	23.9	73.2	26.8	121.5	0.5	5.9	142.0	211.0	0
53	Normal11	29	2.0	168.4	336.8	15.5	23.3	38.8	19.4	58.2	41.8	97.7	0.4	6.8	133.0	190.0	0
57	Normal12	35	3.0	183.3	549.9	11.6	30.4	42.0	22.7	64.7	35.3	110.6	0.9	7.9	129.0	218.0	0
62	Normal13	29	1.0	212.5	212.5	13.8	22.5	36.3	17.9	54.2	45.8	66.9	0.8	8.2	140.0	227.0	0
67	Normal14	29	2.0	183.3	366.6	37.7	20.3	58.0	24.6	82.6	17.4	125.9	0.8	9.0	151.0	268.0	0
79	Normal15	29	3.0	135.5	406.5	22.5	32.4	54.9	27.5	82.4	17.6	120.0	0.7	/	/	/	1
90	Normal16	30	2.0	261.2	522.4	14.2	37.6	51.8	25.4	77.2	22.8	117.0	0.6	6.0	153.0	194.0	0
94	Normal17	33	2.0	286.9	573.8	14.8	21.9	36.7	35.5	72.2	27.8	111.5	0.9	/	/	/	1
98	Normal18	36	5.0	294.9	1474.5	23.4	20.7	44.1	18.0	62.1	37.9	109.5	0.7	6.4	162.0	173.0	0
101	Normal19	30	5.0	180.6	903.0	14.7	20.6	35.3	38.2	73.5	26.5	55.9	0.7	8.4	168.0	255.0	0
112	Normal20	22	5.0	124.9	624.5	21.3	27.7	49.0	14.9	63.9	36.1	111.7	0.8	6.8	161.0	192.0	0
11	Leu1	21	4.0	114.2	456.8	15.9	26.8	42.7	20.9	63.6	36.4	97.2	2.3	6.7	162.0	269.0	0
16	Leu2	31	4.0	184.2	736.8	17.8	20.6	38.4	26.2	64.6	35.4	119.0	1.2	7.0	145.0	255.0	1
17	Leu3	25	3.5	140.8	492.8	16.5	23.1	39.6	13.2	52.8	47.2	75.5	1.4	5.2	157.0	222.0	0
25	Leu4	30	3.0	170.0	510.0	12.5	23.4	35.9	17.2	53.1	46.9	77.3	1.4	8.2	150.0	189.0	0
29	Leu5	27	6.0	114.2	685.2	16.3	23.3	39.6	14.0	53.6	46.4	66.0	1.7	6.5	133.0	170.0	1
30	Leu6	28	3.0	114.2	342.6	15.8	32.6	48.4	14.4	62.8	37.2	108.3	1.2	5.3	129.0	286.0	0

31	Leu7	45	5.0	134.7	673.5	11.9	34.6	46.5	17.7	64.2	35.8	116.0	1.1	6.6	159.0	249.0	0
36	Leu8	34	3.0	116.9	350.7	15.9	31.8	47.7	12.7	60.4	39.6	94.2	1.6	/	/	/	1
44	Leu9	29	3.0	132.8	398.4	17.6	34.4	52.0	18.0	70.0	30.0	89.2	1.1	7.1	157.0	259.0	0
48	Leu10	30	3.0	164.7	494.1	12.9	25.8	38.7	30.6	69.3	30.7	109.4	1.4	5.4	123.0	286.0	0
50	Leu11	27	5.0	116.9	233.8	22.7	20.5	43.2		65.9		94.9	1.2	7.7	153.0	222.0	0
55	Leu12	26	2.0	151.4	302.8	14.0	19.3	33.3	25.3	58.6	41.4	107.2	1.5	9.8	164.0	276.0	0
56	Leu13	31	5.5	207.2	1139.6	14.1	20.5	34.6	21.4	56.0	44.0	100.9	1.8	4.7	136.0	288.0	1
80	Leu14	35	5.5	177.1	974.1	14.0	23.0	37.0	18.5	55.5	44.5	85.6	3.9	/	/	/	0
87	Leu15	30	3.5	170.7	597.5	15.2	17.9	33.1	29.2	62.3	37.7	93.6	1.0	7.3	159.0	254.0	0
104	Leu16	28	3.5	119.5	418.3	15.6	26.7	42.3	26.2	68.5	31.5	105.0	1.0	8.5	130.0	213.0	0
105	Leu17	29	5.5	260.3	1431.7	11.2	22.4	33.6	17.3	50.9	49.1	96.6	1.3	6.0	129.0	215.0	0
106	Leu18	28	5.0	164.7	823.5	12.3	29.7	42.0	14.8	56.8	43.2	98.0	1.3	8.2	167.0	217.0	0
109	Leu19	30	3.0	193.9	581.7	15.1	26.0	41.1	17.8	58.9	41.1	100.3	2.3	/	/	/	0
111	Leu20	29	3.5	154.1	539.4	14.8	19.7	34.5	20.7	55.2	44.8	109.4	1.1	5.4	157.0	202.0	1
114	Leu21	26	3.5	139.7	489.0	13.3	34.0	47.3	26.8	74.1	25.9	105.9	1.3	6.3	163.0	198.0	0
118	Leu22	26	1.0	152.7	152.7	18.1	23.6	41.7	19.1	60.8	39.2	107.2	1.5	10.2	130.0	190.0	0
4	Ast1	30	3.0	175.3	525.9	10.6	21.2	31.8	18.9	50.7	49.3	56.2	0.7	7.5	144.0	211.0	0
7	Ast2	28	3.5	97.3	340.6	1.0	10.3	11.3	30.7	42.0	78.0	46.3	0.8	7.2	153.0	230.0	0
14	Ast3	29	3.0	95.0	285.0	11.1	17.0	28.1	11.0	39.1	60.9	81.6	0.7	6.9	132.0	199.0	1
15	Ast4	31	4.0	85.0	340.0	4.5	12.9	17.4	17.0	34.4	65.6	55.9	0.7	8.4	168.0	255.0	1
20	Ast5	29	6.0	82.4	494.4	11.1	14.7	25.8	15.1	40.9	59.1	62.2	0.7	7.3	128.0	188.0	0
24	Ast6	31	5.0	53.1	265.5	10.0	14.1	24.1	21.8	45.9	54.1	90.1	0.8	6.7	156.0	281.0	0
49	Ast7	36	4.0	61.9	247.6	2.6	11.8	14.4	10.5	24.9	75.1	48.1	0.7	4.8	160.0	257.0	0
78	Ast8	29	3.5	74.4	260.4	7.1	17.9	25.0	20.5	45.5	54.5	60.4	0.7	5.5	155.0	222.0	0
84	Ast9	32	1.5	164.7	247.1	11.1	18.1	29.2	21.0	50.2	49.8	79.3	0.8	/	/	/	1
91	Ast10	35	5.0	148.8	744.0	5.7	21.7	27.4	19.0	46.4	53.6	66.0	0.7	6.5	158.0	223.0	0
108	Ast11	34	4.0	85.0	340.0	12.5	18.8	31.3	14.3	45.6	54.4	77.2	0.5	7.5	149.0	209.0	0
110	Ast12	28	4.0	111.6	446.4	10.3	20.7	31.0	17.5	48.5	51.5	92.7	0.9	5.6	135.0	198.0	0
115	Ast13	33	3.0	103.6	310.8	7.7	17.9	25.6	23.1	48.7	51.3	75.2	0.6	8.0	155.0	209.0	1
6	LA1	40	5.5	111.6	613.8	4.8	14.3	19.1	9.5	28.6	71.4	41.9	1.3	8.5	166.0	295.0	0
10	LA2	34	2.0	93.0	186.0	5.7	11.4	17.1	23.8	40.9	59.1	32.0	1.2	9.6	158.0	215.0	0
12	LA3	30	3.5	69.1	241.9	3.5	8.2	11.7	15.0	26.7	73.3	55.0	1.6	5.0	151.0	256.0	0
19	LA4	33	1.5	97.2	145.8	2.5	12.2	14.7	13.0	27.7	72.3	40.9	1.6	8.9	165.0	216.0	0

21	LA5	37	4.5	98.3	442.4	10.2	22.0	32.2	18.8	51.0	49.0	95.6	1.1	6.7	148.0	218.0	1
22	LA6	38	5.0	55.8	279.0	12.3	17.7	30.0	15.2	45.2	54.8	59.3	1.8	7.0	161.0	237.0	1
26	LA7	29	3.5	45.2	158.2	3.5	9.7	13.2	11.1	24.3	75.7	48.1	2.6	6.8	155.0	214.0	0
27	LA8	39	3.5	39.8	139.3	4.8	15.2	20.0	10.7	30.7	73.3	45.7	1.4	5.7	168.0	213.0	0
28	LA9	40	5.0	71.7	358.5	14.0	16.5	30.5	10.3	40.8	59.2	42.5	1.5	6.8	161.0	221.0	0
32	LA10	26	3.0	75.9	227.7	5.4	7.0	12.4	14.1	26.5	88.5	33.5	2.7	5.2	162.0	265.0	1
35	LA11	39	4.0	147.4	589.6	10.8	16.2	27.0	34.2	61.2	38.8	96.5	1.4	5.3	158.0	210.0	1
38	LA12	32	4.5	21.3	95.9	3.0	9.5	12.5	11.0	23.5	76.5	34.8	3.7	5.1	159.0	233.0	0
42	LA13	27	4.0	132.8	531.2	4.7	12.3	17.0	21.0	38.0	62.0	45.7	3.1	6.1	139.0	265.0	1
51	LA14	32	3.5	55.8	195.3	4.8	14.3	19.1	16.7	35.8	64.2	59.2	1.8	5.9	135.0	195.0	0
54	LA15	21	1.5	71.3	107.0	4.4	10.9	15.3	15.2	30.5	93.5	36.0	2.0	/	/	/	/
59	LA16	34	5.0	74.5	372.5	4.0	13.8	17.8	13.0	30.8	69.2	70.3	1.5	12.7	160.0	169.0	0
64	LA17	32	4.0	74.4	297.6	3.6	14.3	17.9	22.6	40.5	59.5	46.7	1.3	5.9	145.0	170.0	0
74	LA18	32	4.0	45.2	180.8	5.9	11.8	17.7	17.6	35.3	64.7	41.9	2.1	6.9	140.0	213.0	1
77	LA19	31	3.0	75.4	226.2	3.6	14.3	17.9	12.5	30.4	69.6	39.8	2.3	7.0	158.0	231.0	0
82	LA20	26	3.0	73.8	221.4	8.4	21.1	29.5	13.6	43.1	56.9	68.4	1.2	5.6	152.0	231.0	0
85	LA21	34	2.5	69.9	174.8	4.5	6.9	11.4	13.8	25.2	94.8	60.2	1.4	9.7	162.0	167.0	1
86	LA22	27	4.5	50.5	227.3	5.3	14.8	20.1	20.6	40.7	59.3	59.4	1.1	/	/	/	1
88	LA23	39	3.5	67.1	234.9	3.6	10.0	13.6	20.8	34.4	65.6	45.7	1.4	5.7	121.0	213.0	0
89	LA24	30	6.5	63.8	414.7	10.5	18.7	29.2	16.7	45.9	54.1	62.9	3.4	/	/	/	0
92	LA25	29	2.5	69.1	172.8	7.7	14.5	22.2	17.8	40.0	60.0	56.2	1.2	6.7	145.0	202.0	0
96	LA26	41	5.5	98.3	540.7	10.8	12.2	23.0	17.6	40.6	59.4	64.0	2.7	/	/	/	0
99	LA27	41	3.0	103.6	207.2	6.8	15.0	21.8	18.6	40.4	49.6	68.8	1.4	/	/	/	0
102	LA28	26	3.5	129.2	452.2	5.7	12.9	18.6	12.0	30.6	69.4	63.5	2.7	5.2	119.0	265.0	0
107	LA29	28	6.0	77.1	462.6	16.1	15.1	31.2	23.6	54.8	45.2	88.0	1.1	/	/	/	0
113	LA30	31	4.5	74.4	334.8	4.9	12.9	17.8	30.9	48.7	51.3	42.1	2.8	6.1	150.0	189.0	0
116	LA31	31	3.0	79.7	239.1	6.7	15.7	22.4	21.0	43.4	56.6	69.4	1.8	5.5	153.0	201.0	0
117	LA32	28	2.5	97.6	244.0	8.5	12.9	21.4	12.3	33.7	96.3	53.1	1.5	6.3	145.0	198.0	0