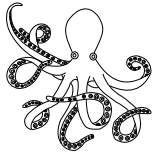


Diving & ROV Specialists



52/2 moo 3 tambon Tarpo 65000 Phitsanulock - Thailand

Tel: +66 857 277 123
E mail: info@cco ltd.co.th

Unit Pulmonary Toxic Doses (UPTD) tables according to the document "Use of the University of Pennsylvania institute for environmental medicine: Procedure for calculation of cumulative oxygen toxicity".

By doctor W. Brandon Wright

Tabular method for calculation of the Unit Pulmonary Toxic Dose (UPTD):

The UPTD is calculated using the tables for oxygen exposures from 0.6 atmospheres to 5.0 atmospheres in increments of 0.1 Ata, displayed on the following pages.

The times are expressed in minutes with the corresponding UPTD, with a maximum of sixty minutes. If an exposure is longer than sixty minutes, one may convert the time of the stop to hours and minutes and enter the table twice, once for the number of hours to get UPTD in hours and once for the remaining time in minutes to get UPTD in minutes.

To calculate the Unit Pulmonary Toxic Dose:

1. Convert the partial pressure of oxygen breathed at each depth to PO₂ in atmospheres.
2. Select the appropriate PO₂ table (*see the table below for 0.6 ATA*).
3. Enter the table in the "time" line at the time corresponding to the duration stop.
4. Read the corresponding UPTD.
5. Add the UPTD's for each depth together to get the total UPTD for the exposure.

It is also permissible to break a single exposure to the same PO₂ down into partial times small enough to be found in the tables and then add each corresponding UPTD to find the total UPTD of the stop.

Unit Pulmonary Toxic Dose - PP oxygen 0.6 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	0.26	0.52	0.78	1.05	1.31	1.57	1.83	2.09	2.35	2.62
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	2.88	3.14	3.4	3.66	3.92	4.18	4.45	4.71	4.97	5.23
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	4.49	5.75	6.02	6.28	6.54	6.8	7.06	7.32	7.58	7.85
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	8.11	8.37	8.63	8.89	9.15	9.42	9.68	9.94	10.2	10.46
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	10.72	10.98	11.25	11.51	11.77	12.03	12.29	12.55	12.82	13.08
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	13.34	13.6	13.86	14.12	14.38	14.65	14.91	15.17	15.43	15.69

Unit Pulmonary Toxic Dose - PP oxygen 0.7 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	0.47	0.93	1.4	1.86	2.33	2.8	3.26	3.73	4.19	4.66
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	5.13	5.59	6.06	6.52	6.99	7.46	7.92	8.39	8.85	9.32
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	9.79	10.25	10.72	11.18	11.65	12.12	12.58	13.05	13.51	13.98
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	14.45	14.91	15.38	15.84	16.31	16.78	17.24	17.71	18.17	18.64
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	19.11	19.57	20.04	20.5	20.97	21.44	21.9	22.37	22.83	23.3
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	23.77	24.23	24.7	25.16	25.63	26.1	26.56	27.03	27.49	27.96

Unit Pulmonary Toxic Dose - PP oxygen 0.8 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	0.65	1.31	1.96	2.61	3.27	3.92	4.57	5.23	5.88	6.53
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	7.19	7.84	8.49	9.15	9.8	10.45	11.11	11.76	12.41	13.07
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	13.72	14.37	15.03	15.68	16.33	19.99	17.64	18.29	18.95	19.6
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	20.25	20.91	21.56	22.21	22.87	23.52	24.17	24.83	25.48	26.13
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	26.79	27.44	28.09	28.75	29.4	30.05	30.71	31.36	32.01	32.67
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	33.32	33.97	34.63	35.28	35.93	36.59	37.24	37.89	38.55	39.2

Unit Pulmonary Toxic Dose - PP oxygen 0.9 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	0.83	1.66	2.49	3.32	4.15	4.98	5.81	6.64	7.47	8.3
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	9.13	9.96	10.79	11.62	12.45	13.29	14.12	14.95	15.78	16.61
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	17.44	18.27	19.1	19.93	20.76	21.59	22.42	23.25	24.08	24.91
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	25.74	26.57	27.4	28.23	29.06	29.89	30.72	31.55	32.38	33.21
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	34.04	34.87	35.7	36.53	37.36	38.19	39.02	39.86	40.69	41.52
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	42.35	43.18	44.01	44.84	45.67	46.5	47.33	48.16	48.99	49.82

Unit Pulmonary Toxic Dose - PP oxygen 1.1 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	1.16	2.33	3.49	4.66	5.82	6.98	8.15	9.31	10.48	11.64
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	12.8	13.97	15.13	16.3	17.46	18.63	19.79	20.95	22.12	23.28
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	24.45	25.61	26.77	27.94	29.1	30.27	31.43	32.59	33.76	34.92
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	36.09	37.25	38.41	39.58	40.74	41.91	43.07	44.24	45.4	46.56
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	47.73	48.89	50.06	51.22	52.38	53.55	54.71	55.88	57.04	58.2
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	59.37	60.53	61.7	62.86	64.02	65.19	66.35	67.52	68.68	69.85

Unit Pulmonary Toxic Dose - PP oxygen 1.2 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	1.32	2.65	3.97	5.29	6.62	7.94	9.27	10.59	11.91	13.24
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	14.56	15.88	17.21	18.53	19.85	21.28	22.5	23.83	25.15	26.47
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	27.8	29.12	30.44	31.77	33.09	34.41	35.74	37.06	38.39	39.71
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	41.03	42.36	43.68	45	46.33	47.65	48.98	50.3	51.62	52.95
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	54.27	55.59	56.92	58.24	59.56	60.89	62.21	63.54	64.86	66.18
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	67.51	68.83	70.15	71.48	72.8	74.12	75.45	76.77	78.1	79.42

Unit Pulmonary Toxic Dose - PP oxygen 1.3 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	1.43	2.96	4.44	5.92	7.4	8.88	10.36	11.84	13.32	14.79
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	16.27	17.75	19.23	20.71	22.19	23.67	25.15	26.63	28.11	29.59
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	31.07	32.55	34.03	35.51	36.99	38.47	39.95	41.42	42.9	44.38
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	45.86	47.34	48.82	50.3	51.78	53.26	54.74	56.22	57.7	59.18
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	60.66	62.16	63.62	65.1	66.58	68.05	69.53	71.01	72.49	73.97
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	75.45	76.93	78.41	79.89	81.37	82.85	84.33	85.81	87.29	88.77

Unit Pulmonary Toxic Dose - PP oxygen 1.4 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	1.63	3.26	4.9	6.53	8.16	9.79	11.42	13.06	14.69	16.32
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	17.95	19.58	21.22	22.85	24.48	26.11	27.74	29.38	31.01	32.64
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	34.27	35.9	37.54	39.17	40.8	42.43	44.06	45.7	47.33	48.96
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	50.59	52.22	53.86	55.49	57.12	58.75	60.38	62.02	63.65	65.28
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	66.41	68.55	70.18	71.81	73.44	75.07	76.71	78.34	79.97	81.6
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	83.23	84.87	86.5	88.13	89.76	91.39	93.03	94.66	96.29	97.92

Unit Pulmonary Toxic Dose - PP oxygen 1.5 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	1.78	3.56	5.35	7.13	8.91	10.69	12.47	14.25	16.04	17.82
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	19.6	21.38	23.16	24.95	26.73	28.51	30.29	32.07	33.85	35.64
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	37.42	39.2	40.98	42.76	44.54	46.33	48.11	49.89	51.67	53.45
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	55.24	57.02	58.8	60.58	62.36	64.14	65.93	67.71	69.49	71.27
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	73.05	74.84	76.62	78.4	80.18	81.96	83.74	85.53	87.31	89.09
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	90.87	92.65	94.44	96.22	98	99.78	101.56	103.34	105.13	106.91

Unit Pulmonary Toxic Dose - PP oxygen 1.6 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	1.93	3.86	5.79	7.72	9.65	11.57	13.5	15.43	17.36	19.29
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	21.22	23.15	25.08	27.01	28.94	30.87	32.79	34.72	36.65	38.58
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	40.51	42.44	44.37	46.3	48.23	50.16	52.09	54.01	55.94	57.87
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	59.8	61.73	63.66	65.59	67.52	69.45	71.38	73.31	75.23	77.16
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	79.09	81.02	82.95	84.88	86.81	88.74	90.67	92.6	94.53	96.45
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	98.38	100.31	102.24	104.17	106.1	108.03	109.96	111.89	113.82	115.75

Unit Pulmonary Toxic Dose - PP oxygen 1.7 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	2.07	4.15	6.22	8.3	10.37	12.44	14.52	16.59	18.67	20.74
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	22.82	24.89	26.96	29.04	31.11	33.19	35.26	37.33	39.41	41.48
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	43.56	45.63	47.71	49.78	51.85	53.93	56	58.06	60.15	62.22
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	64.3	66.37	68.45	70.52	72.6	74.67	76.74	78.82	80.89	82.97
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	85.04	87.11	89.19	91.26	93.34	95.41	97.49	99.56	101.63	103.71
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	105.78	107.86	109.93	112	114.08	116.15	118.23	120.3	122.38	124.45

Unit Pulmonary Toxic Dose - PP oxygen 1.8 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	2.22	4.43	6.65	8.87	11.09	13.3	15.52	17.74	19.96	22.17
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	24.39	26.61	28.82	31.04	33.26	35.48	37.69	39.91	42.13	44.34
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	46.56	48.78	51	53.21	55.43	57.65	59.87	62.08	64.3	66.52
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	68.73	70.95	73.17	75.39	77.6	79.82	82.04	84.25	86.47	88.69
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	90.91	93.12	95.34	97.56	99.78	101.99	104.21	106.43	108.64	110.86
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	113.08	115.3	117.51	119.73	121.95	124.16	126.38	128.6	130.82	133.03

Unit Pulmonary Toxic Dose - PP oxygen 1.9 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	2.36	4.72	7.08	9.43	11.79	14.15	16.51	18.87	21	23.58
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	25.94	28.30	30.66	33.02	35.38	37.74	40.09	42.45	44.81	47.17
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	49.53	51.89	54.24	56.6	58.96	61.32	63.68	65.04	68.4	70.75
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	73.11	75.47	77.83	80.19	82.55	84.91	87.26	89.62	91.98	94.34
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	96.7	99.06	101.41	103.77	106.13	108.49	110.85	113.21	115.57	117.92
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	120.28	122.64	125	127.36	129.72	132.07	134.43	136.79	139.15	141.51

Unit Pulmonary Toxic Dose - PP oxygen 2.0 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	2.5	5	7.49	9.99	12.49	14.99	17.49	19.98	22.48	24.98
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	27.48	29.98	32.47	34.97	37.47	39.97	42.47	44.96	47.46	49.96
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	52.46	54.96	57.46	59.96	62.46	64.96	67.46	69.96	72.46	74.94
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	77.44	79.94	82.44	84.93	87.43	89.93	92.43	94.93	97.42	99.92
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	102.42	104.92	107.42	109.91	112.41	114.91	117.41	119.91	122.4	124.9
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	127.4	129.9	132.4	134.89	137.39	139.89	142.39	144.89	147.38	149.88

Unit Pulmonary Toxic Dose - PP oxygen 2.1 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	2.64	5.27	7.91	10.54	13.18	15.82	18.45	21.09	23.72	26.36
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	29	31.63	34.27	36.91	39.54	42.18	44.81	47.45	50.09	52.72
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	55.36	57.99	60.63	63.27	65.9	68.54	71.17	73.81	76.45	79.08
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	81.72	84.35	86.99	89.63	92.26	94.9	97.53	100.17	102.81	105.44
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	108.08	110.72	113.35	115.99	118.62	121.26	123.9	126.53	129.17	131.8
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	134.44	137.08	139.71	142.35	144.98	147.62	150.26	152.89	155.53	158.16

Unit Pulmonary Toxic Dose - PP oxygen 2.2 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	2.77	5.55	8.32	11.09	13.86	16.64	19.41	22.18	24.95	27.73
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	30.5	33.27	36.04	38.82	41.59	44.36	47.14	49.91	52.68	55.45
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	58.23	61	63.77	66.54	69.32	72.09	74.86	77.63	80.41	83.18
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	85.95	88.73	91.5	94.27	97.04	99.82	102.59	105.36	108.13	110.91
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	113.68	116.45	119.23	122	124.77	127.54	130.32	133.09	135.86	138.63
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	141.41	144.18	146.45	149.72	152.5	155.27	158.04	160.82	163.59	166.36

Unit Pulmonary Toxic Dose - PP oxygen 2.3 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	2.91	5.82	8.72	11.62	14.52	17.42	20.32	23.22	26.12	29.02
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	31.99	34.9	37.8	40.71	43.62	46.53	49.43	52.34	55.25	58.16
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	61.07	63.97	66.88	69.79	72.7	75.61	78.51	81.42	84.33	87.24
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	90.15	93.05	95.96	98.87	101.78	104.69	107.59	110.5	113.41	116.32
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	119.23	122.13	125.04	127.95	130.86	133.77	136.67	139.58	142.49	145.4
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	148.3	151.21	154.12	157.03	159.94	162.84	165.75	168.66	171.57	174.48

Unit Pulmonary Toxic Dose - PP oxygen 2.4 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	3.04	6.08	9.13	12.17	15.21	18.25	21.29	24.34	27.38	30.42
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	33.46	36.5	39.55	42.59	45.63	48.67	51.71	54.76	57.8	60.84
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	63.88	66.92	69.96	73.01	76.05	79.09	82.13	85.17	88.22	91.26
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	94.3	97.34	100.38	103.38	106.43	109.47	112.55	115.59	118.64	121.68
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	124.72	127.76	130.8	133.85	136.89	139.93	142.97	146.01	149.06	152.1
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	155.14	158.18	161.22	164.27	167.31	170.35	173.39	176.43	179.48	182.52

Unit Pulmonary Toxic Dose - PP oxygen 2.5 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	3.17	6.35	9.52	12.7	15.87	19.05	22.22	25.4	28.57	31.75
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	34.92	38.1	41.27	44.45	47.62	50.8	53.97	57.15	60.32	63.5
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	66.67	69.87	73.02	76.2	79.37	82.54	85.72	88.89	92.07	95.24
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	98.42	101.59	104.77	107.94	111.12	114.29	117.47	120.64	123.82	126.99
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	130.17	133.34	136.52	139.69	142.87	146.04	149.22	152.39	155.57	158.74
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	161.91	165.09	168.26	171.44	174.61	177.79	180.96	184.14	187.31	190.49

Unit Pulmonary Toxic Dose - PP oxygen 2.6 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	3.31	6.61	9.92	13.23	16.53	19.84	23.15	26.45	29.76	33.07
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	36.37	39.68	42.99	46.29	49.6	52.9	56.21	59.52	62.82	66.13
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	69.44	72.74	76.05	79.36	82.66	85.97	89.28	92.58	95.89	99.2
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	102.5	105.81	109.12	112.42	115.73	119.04	122.34	125.65	128.96	132.26
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	135.57	138.87	142.18	145.49	148.79	152.1	155.41	158.71	162.02	165.33
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	168.63	171.94	175.25	178.55	181.86	185.17	188.47	191.78	195.09	198.39

Unit Pulmonary Toxic Dose - PP oxygen 2.7 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	3.44	6.87	10.31	13.75	17.19	20.62	24.06	27.5	30.94	34.37
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	37.81	41.25	44.68	48.12	51.56	55	58.43	61.87	65.31	68.74
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	72.18	75.62	79.06	82.49	85.93	89.37	92.81	96.24	99.68	103.12
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	106.55	109.99	113.43	116.87	120.3	123.74	127.18	130.62	134.05	137.49
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	140.93	144.36	147.8	151.24	154.68	158.11	161.55	164.99	168.43	171.86
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	175.3	178.74	182.17	185.61	189.05	192.49	195.92	199.36	202.8	206.23

Unit Pulmonary Toxic Dose - PP oxygen 2.8 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	3.57	7.13	10.7	14.27	17.83	21.4	24.97	28.54	32.1	35.67
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	39.24	42.8	46.37	49.94	53.5	57.07	60.64	64.21	67.77	71.34
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	74.91	78.47	82.04	85.61	89.17	92.74	96.31	99.87	103.44	107.01
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	110.58	114.14	117.71	121.28	124.84	128.41	131.98	135.54	139.11	142.68
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	146.25	149.81	153.38	156.95	160.51	164.08	167.65	171.21	174.78	178.35
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	181.91	185.48	189.05	192.62	196.18	199.75	203.32	206.88	210.45	214.02

Unit Pulmonary Toxic Dose - PP oxygen 2.9 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	3.7	7.39	11.09	14.79	18.48	22.17	25.87	29.57	33.26	36.96
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	40.65	44.35	48.04	51.74	55.44	59.13	62.83	66.52	70.22	73.91
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	77.61	81.31	85	88.7	92.39	96.09	99.78	103.48	107.18	110.87
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	114.57	118.26	121.96	125.66	129.35	133.05	136.74	140.44	144.13	147.83
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	151.53	155.22	158.92	162.61	166.31	170	173.7	177.4	181.09	184.79
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	188.43	192.18	195.87	199.57	203.27	206.96	210.66	214.35	218.05	221.74

Unit Pulmonary Toxic Dose - PP oxygen 3.0 ata

Time (minutes)	1	2	3	4	5	6	7	8	9	10
UPTD	3.82	7.65	11.47	15.29	19.12	22.94	26.77	30.59	34.41	38.24
Time (minutes)	11	12	13	14	15	16	17	18	19	20
UPTD	42.06	45.88	49.71	53.53	57.35	61.18	65	68.83	72.65	76.47
Time (minutes)	21	22	23	24	25	26	27	28	29	30
UPTD	80.3	84.12	87.94	91.77	95.59	99.41	103.24	107.06	110.89	114.71
Time (minutes)	31	32	33	34	35	36	37	38	39	40
UPTD	118.53	122.36	126.18	130	133.83	137.65	141.47	145.3	149.12	152.94
Time (minutes)	41	42	43	44	45	46	47	48	49	50
UPTD	156.77	160.59	164.42	168.24	172.06	175.89	179.71	183.53	187.36	191.18
Time (minutes)	51	52	53	54	55	56	57	58	59	60
UPTD	195	198.83	202.65	206.48	210.3	214.12	217.95	221.77	225.59	229.42

