

Atmospheric (air) Pressure also adds weight upon the diver, even when he is underwater. This is comparable to 14.7PSI.

1 Atmosphere Absolute (ATA)

Sea Level

Converting Between Pressure and Depth

**Pressure (ATA)**

*Imperial* = Depth in FSW/33 +1  
Or  
*Metric* = Depth in MSW/10 +1

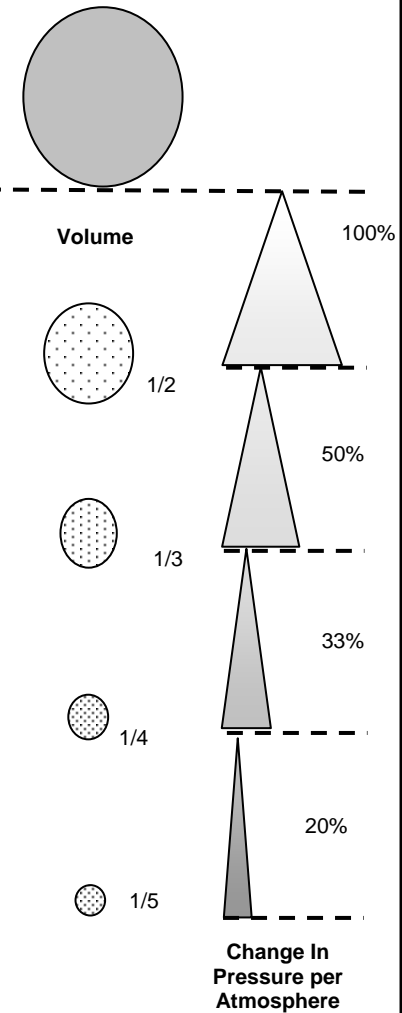
**Depth (FSW or MSW)**

*Imperial* = (Pressure in ATA - 1) x 33  
Or  
*Metric* = (Pressure in ATA - 1) x 10

Depth (ATA)	Depth (MSW)	Depth (FSW)	Pressure (ATM <sub>H<sub>2</sub>O</sub> )	Increase in Pressure
1 ATA	0 MSW	0 FSW	1 ATM <sub>H<sub>2</sub>O</sub>	1x
2 ATA	10 MSW	33 FSW	2 ATM <sub>H<sub>2</sub>O</sub>	2x
3 ATA	20 MSW	66 FSW	3 ATM <sub>H<sub>2</sub>O</sub>	3x
4 ATA	30 MSW	99 FSW	4 ATM <sub>H<sub>2</sub>O</sub>	4x
5 ATA	40 MSW	132 FSW	5 ATM <sub>H<sub>2</sub>O</sub>	5x

Total Absolute Pressure (ATA)      Hydrostatic Pressure (ATM<sub>H<sub>2</sub>O</sub>)

Column of Sea Water



# Pressure and Volume Relationships