

# Blood Alcohol Levels and Effects

Alcohol's effects are roughly predictable from the amount of alcohol in the bloodstream, assuming that no tolerance has been developed. The following list indicates what effects alcohol typically has at several Blood Alcohol Levels:

- .02%** Light and moderate drinkers begin to feel some effect (about one drink).
- .04%** Most people begin to feel relaxed.
- .06%** Judgment is somewhat impaired; people are less able to make rational decisions about their capabilities, for example driving.
- .08%** Definite impairment of muscle coordination and driving skills. increased risk of nausea and slurred speech.
- .10%** Although reaction time is affected after the first drink, there is a clear deterioration of reaction time and control at this level.
- .15%** Balance and movement are impaired. risk of blackouts, accidents, nausea, passing out and hangovers.
- .30%** Many people lose consciousness.
- .40%** Most people lose consciousness, some die.
- .45%** Breathing stops, death occurs.

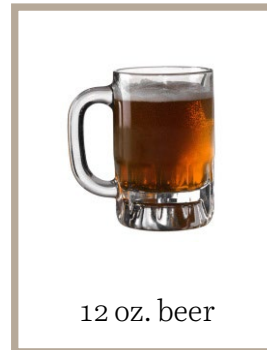
Note: These effects occur for people who have not developed a high tolerance for alcohol. For people with high tolerances, these effects may not occur until higher levels of intoxication. Heavy drinkers must therefore consume more alcohol to achieve the same effects as moderate drinkers which costs more money and is more harmful to the body.



## STANDARD DRINKS

Most people think drinks are counted by containers, rather than by standard drink. Knowing what a standard drink is can help you determine how much alcohol you are actually consuming.

The following are all **One Standard Drink**:



The rate of alcohol absorption depends upon a variety of factors, including:

- Type and strength of alcohol
- Rate of consumption
- Effervescence (bubble or froth)
- Amount of food in stomach

While many factors may impact the rate of alcohol absorption, there is only one factor that impacts the rate of oxidation, or how quickly alcohol leaves your blood stream. That factor is **time**. Your BAC is only reduced by .016% every hour. This means that, on average, it takes about one hour to metabolize one standard drink.

## Approximate Blood Alcohol Levels as a Function of Number of Drinks and Time Determined by Weight for Women

<b>100lb. Female</b>	NUMBER OF HOURS								
		1	2	3	4	5	6	7	8
NUMBER OF DRINKS	1	.029	.013	-	-	-	-	-	-
	2	.074	.058	.042	.026	.010	-	-	-
	3	.119	.103	.087	.071	.055	.039	.023	.007
	4	.164	.148	.132	.116	.100	.084	.068	.052
	5	.209	.193	.177	.161	.145	.129	.113	.097
	6	.254	.238	.222	.206	.190	.174	.158	.142
	7	.299	.283	.267	.251	.235	.219	.203	.187
	8	.344	.328	.312	.296	.280	.264	.248	.232
	9	.389	.373	.357	.341	.325	.309	.293	.277
	10	.434	.418	.402	.386	.370	.354	.338	.322
	11	.479	.463	.447	.431	.415	.399	.383	.367
	12	.524	.508	.492	.476	.460	.444	.428	.412

<b>140lb. Female</b>	NUMBER OF HOURS								
		1	2	3	4	5	6	7	8
NUMBER OF DRINKS	1	.016	-	-	-	-	-	-	-
	2	.048	.032	.016	-	-	-	-	-
	3	.080	.064	.048	.032	.016	-	-	-
	4	.112	.096	.080	.064	.048	.032	.016	-
	5	.144	.128	.112	.096	.080	.064	.048	.032
	6	.176	.160	.144	.128	.112	.096	.080	.064
	7	.209	.193	.177	.161	.145	.129	.113	.097
	8	.241	.225	.209	.193	.177	.161	.145	.129
	9	.273	.257	.241	.225	.209	.193	.177	.161
	10	.305	.289	.273	.257	.241	.225	.209	.193
	11	.337	.321	.305	.289	.273	.257	.241	.225
	12	.369	.353	.337	.321	.305	.289	.273	.257

<b>180lb. Female</b>	NUMBER OF HOURS								
		1	2	3	4	5	6	7	8
NUMBER OF DRINKS	1	.009	-	-	-	-	-	-	-
	2	.034	.018	.002	-	-	-	-	-
	3	.059	.043	.027	.011	-	-	-	-
	4	.084	.068	.052	.036	.020	.004	-	-
	5	.109	.093	.077	.061	.045	.029	.013	-
	6	.134	.118	.102	.086	.070	.054	.038	.022
	7	.159	.143	.127	.111	.095	.079	.063	.047
	8	.184	.168	.152	.136	.120	.104	.088	.072
	9	.209	.193	.177	.161	.145	.129	.113	.097
	10	.234	.218	.202	.186	.170	.154	.138	.122
	11	.259	.243	.227	.211	.195	.179	.163	.147
	12	.284	.268	.252	.236	.220	.204	.188	.172

<b>120lb. Female</b>	NUMBER OF HOURS								
		1	2	3	4	5	6	7	8
NUMBER OF DRINKS	1	.021	.005	-	-	-	-	-	-
	2	.059	.043	.027	.011	-	-	-	-
	3	.096	.080	.064	.048	.032	.016	-	-
	4	.134	.118	.102	.086	.070	.054	.038	.022
	5	.171	.155	.139	.123	.107	.091	.075	.059
	6	.209	.193	.177	.161	.145	.129	.113	.097
	7	.246	.230	.214	.198	.182	.166	.150	.134
	8	.284	.268	.252	.236	.220	.204	.188	.172
	9	.321	.305	.289	.273	.257	.241	.225	.209
	10	.359	.343	.327	.311	.295	.279	.263	.247
	11	.396	.380	.364	.348	.332	.316	.300	.284
	12	.434	.418	.402	.386	.370	.354	.338	.322

<b>160lb. Female</b>	NUMBER OF HOURS								
		1	2	3	4	5	6	7	8
NUMBER OF DRINKS	1	.012	-	-	-	-	-	-	-
	2	.040	.024	.008	-	-	-	-	-
	3	.068	.052	.036	.020	.004	-	-	-
	4	.096	.080	.064	.048	.032	.016	-	-
	5	.124	.108	.092	.076	.060	.044	.028	.012
	6	.152	.136	.120	.104	.088	.072	.056	.040
	7	.180	.164	.148	.132	.116	.100	.084	.068
	8	.209	.193	.177	.161	.145	.129	.113	.097
	9	.237	.221	.205	.189	.173	.157	.141	.125
	10	.265	.249	.233	.217	.201	.185	.169	.153
	11	.293	.277	.261	.245	.229	.213	.197	.181
	12	.321	.305	.289	.273	.257	.241	.225	.209

<b>200lb. Female</b>	NUMBER OF HOURS								
		1	2	3	4	5	6	7	8
NUMBER OF DRINKS	1	.006	-	-	-	-	-	-	-
	2	.029	.013	-	-	-	-	-	-
	3	.051	.035	.019	.003	-	-	-	-
	4	.074	.058	.042	.026	.010	-	-	-
	5	.096	.080	.064	.048	.032	.016	-	-
	6	.119	.103	.087	.071	.055	.039	.023	.007
	7	.141	.125	.109	.093	.077	.061	.045	.029
	8	.164	.148	.132	.116	.100	.084	.068	.052
	9	.186	.170	.154	.138	.122	.106	.090	.074
	10	.209	.193	.177	.161	.145	.129	.113	.097
	11	.231	.215	.199	.183	.167	.151	.135	.119
	12	.254	.238	.222	.206	.190	.174	.158	.142

**BAL tables are ESTIMATES only** and are not intended to convey that drinking any amount of alcohol is safe. Therefore, the charts should not be used to determine whether or not someone should be permitted to drive. Drinking alcoholic beverages is unlawful for those under 21 years of age.

*This resource has been adapted from resources provided by Holmes Murphy Fraternal Practice.  
For more information and resources, visit <https://www.holmesmurphy.com/groups/fraternal/>.*