

BAC Estimation Charts

A person's BAC is a measurement of the amount of pure alcohol in his blood. The legal level of impairment in Canada is 0.08 mg % and that is the level that is used in these BAC charts.

Although BAC estimation charts are not accurate on their own, they can help you recognize potentially intoxicated customers when combined with careful observation.

Following are the BAC estimation charts for men and women.

BAC Estimation Charts ¹

Men Approximate Blood Alcohol Percentage

Drinks	Body Weight in Pounds (Kilograms in Brackets)								
	100 (45)	120 (54)	140 (64)	160 (73)	180 (82)	200 (91)	220 (100)	240 (109)	
1	.04	.03	.03	.02	.02	.02	.02	.02	Impairment Begins
2	.08	.06	.05	.05	.04	.04	.03	.03	
3	.11	.09	.08	.07	.06	.06	.05	.05	
4	.15	.12	.11	.09	.08	.08	.07	.06	
5	.19	.16	.13	.12	.11	.09	.09	.08	Legally Impaired for Driving
6	.23	.19	.16	.14	.13	.11	.10	.09	
7	.26	.22	.19	.16	.15	.13	.12	.11	
8	.30	.25	.21	.19	.17	.15	.14	.13	
9	.34	.28	.24	.21	.19	.17	.15	.14	
10	.38	.31	.27	.23	.21	.19	.17	.16	

Subtract 0.01% for each 40 minutes of drinking
 One drink is: 1.5 oz (44 ml) of spirits @40% alc/vol
 or 12 oz (355 ml) of beer @ 5% alc/vol
 or 5 oz (148 ml) of wine @ 12% alc/vol

¹ BAC Estimation Chart data should not be relied upon without considering other factors and individual conditions.

BAC Estimation Charts, continued

Women

Approximate Blood Alcohol Percentage

Drinks	Body Weight in Pounds (Kilograms in Brackets)									
	90 (41)	100 (45)	120 (54)	140 (64)	160 (73)	180 (82)	200 (91)	220 (100)	240 (109)	
1	.05	.05	.04	.03	.03	.03	.02	.02	.02	Impairment Begins
2	.10	.09	.08	.07	.06	.05	.05	.04	.04	
3	.15	.14	.11	.10	.09	.08	.07	.06	.06	
4	.20	.18	.15	.13	.11	.10	.09	.08	.08	Legally Impaired for Driving
5	.25	.23	.19	.16	.14	.13	.11	.10	.09	
6	.30	.27	.23	.19	.17	.15	.14	.12	.11	
7	.35	.32	.27	.23	.20	.18	.16	.14	.13	
8	.40	.36	.30	.26	.23	.20	.18	.17	.15	
9	.45	.41	.34	.29	.26	.23	.20	.19	.17	
10	.51	.45	.38	.32	.28	.25	.23	.21	.19	

Subtract 0.01% for each 40 minutes of drinking

One drink is: 1.5 oz (44 ml) of spirits @40% alc/vol
 or 12 oz (355 ml) of beer @ 5% alc/vol
 or 5 oz (148 ml) of wine @ 12% alc/vol

To use the BAC estimation charts, first locate the approximate weight of the individual along the top of table. Next, locate the number of drinks the individual has consumed in the left column of the table. (The figures for calculating the standard drink are presented in italics between the two charts). Where the weight column and number of drinks row meet is the approximate BAC of the individual.

For example, let's assume the customer is a female that weighs approximately 140 pounds (64 kg) and has consumed three drinks in half an hour. The customer's approximate BAC would be 0.10 mg %. If the drinks had been consumed over three hours (180 minutes), then the BAC would be 0.055 mg % (by subtracting 0.01 for every 40 minutes).

On-premises, you can use information gained by using BAC estimation charts in combination with signs of intoxication to monitor the customer and determine the pace of service.

BAC Estimation Charts, continued

There is an approximate relationship between BAC and signs of intoxication. Customers with the BAC levels identified in the table that follows often exhibit the corresponding behavioural signs.

Remember, a customer may show signs of intoxication and not legally be impaired, i.e., BAC may be under 0.08 mg %. Conversely, a customer may not be showing any signs of intoxication but have a BAC reading over 0.08 mg %.

Approximate BAC	Behavioural Signs That May Be Exhibited
0.05 mg %	Inhibitions relaxed.
0.08 mg %	Muscle co-ordination is weakened and driving skills are impaired; is legally impaired by law pertaining to operation of a motor vehicle.
0.10 mg %	Reaction time is slowed, loss of control and judgment.
0.12 mg %	Vomiting often occurs (unless level is reached slowly).
0.15 mg %	Balance and movement are impaired.
0.20 mg %	Coordination and perception are severely affected.
0.30 mg %	Loss of consciousness, inability to function.
0.50 mg %	Death.

IMPORTANT

The information contained in the BAC estimation charts should be used as a guideline only. Many factors can contribute to the BAC level of an individual (e.g., intake of food, accurate assessment of weight) and consequently lessen the usefulness of the figures. Therefore, these calculations should not be considered conclusive when evaluating a customer's sobriety or intoxication.

While BAC estimation charts are useful tools in assessing intoxication, careful observation of customers must also form part of your assessment process to help you more accurately evaluate the condition of the customer.