

National Center for Injury Prevention and Control 

**Mandated Substance Abuse Treatment
for Ignition Interlock Users**

Does it Reduce Recidivism?

Lifesavers 2016
Effective Implementation of Ignition Interlock Programs
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Yes, it looks promising!

Why CDC??

10 Leading Causes of Death by Age Group, United States – 2014

Rank	Age Groups										Total	
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+		
1	Congenital Anomalies 4,140	Unintentional Injury 1,215	Unintentional Injury 720	Unintentional Injury 700	Unintentional Injury 11,256	Unintentional Injury 5,279	Unintentional Injury 12,260	Unintentional Injury 16,248	Malignant Neoplasms 44,514	Malignant Neoplasms 115,292	Heart Disease 489,722	Heart Disease 614,348
2	Short Gestation 4,172	Congenital Anomalies 398	Malignant Neoplasms 426	Suicide 425	Suicide 5,279	Suicide 6,260	Malignant Neoplasms 11,267	Heart Disease 34,791	Heart Disease 14,473	Malignant Neoplasms 124,893	Malignant Neoplasms 147,191	
3	Maternal Pregnancy Comp. 1,574	Homicide 344	Congenital Anomalies 192	Malignant Neoplasms 416	Homicide 4,141	Homicide 4,129	Heart Disease 20,816	Unintentional Injury 23,019	Chronic Low Respiratory Disease 15,492	Chronic Low Respiratory Disease 124,893	Chronic Low Respiratory Disease 147,191	
4	800 1,045	Malignant Neoplasms 321	Homicide 172	Heart Disease 156	Malignant Neoplasms 1,569	Malignant Neoplasms 3,624	Suicide 6,799	Suicide 8,727	Chronic Low Respiratory Disease 16,492	Cerebrovascular 113,308	Unintentional Injury 138,053	
5	Unintentional Injury 1,161	Heart Disease 149	Heart Disease 69	Heart Disease 250	Heart Disease 953	Heart Disease 3,341	Heart Disease 2,500	Liver Disease 8,627	Diabetes Mellitus 13,342	Alzheimer's Disease 92,604	Cerebrovascular 133,193	
6	Placenta Cord Membranes 965	Influenza & Pneumonia 109	Chronic Low Respiratory Disease 68	Heart Disease 122	Heart Disease 377	Liver Disease 725	Liver Disease 2,582	Diabetes Mellitus 6,982	Liver Disease 12,792	Diabetes Mellitus 54,181	Alzheimer's Disease 93,141	
7	Bacterial Septicemia 544	Chronic Low Respiratory Disease 53	Influenza & Pneumonia 57	Chronic Low Respiratory Disease 71	Influenza & Pneumonia 159	Diabetes Mellitus 709	Diabetes Mellitus 1,999	Cerebrovascular 5,349	Cerebrovascular 11,727	Unintentional Injury 49,295	Diabetes Mellitus 74,488	
8	Respiratory System 490	Septicemia 53	Cerebrovascular 43	Cerebrovascular 61	Diabetes Mellitus 351	HIV 503	Cerebrovascular 1,342	Chronic Low Respiratory Disease 4,802	Suicide 7,527	Influenza & Pneumonia 4,839	Influenza & Pneumonia 55,227	
9	Cerebrovascular 344	Septicemia 38	Septicemia 38	Septicemia 41	Chronic Low Respiratory Disease 178	Cerebrovascular 679	HIV 1,114	Influenza & Pneumonia 2,719	Diabetes Mellitus 4,802	Suicide 38,957	Septicemia 48,148	
10	Neonatal Hemorrhage 441	Perinatal Period 38	Septicemia 33	Septicemia 38	Cerebrovascular 177	Influenza & Pneumonia 649	Influenza & Pneumonia 1,125	Septicemia 2,514	Influenza & Pneumonia 5,380	Septicemia 29,124	Suicide 42,773	

Data Source: National Vital Statistics System, National Center for Health Statistics, CDC. Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.

10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States – 2014

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 981	Unintentional Drowning 588	Unintentional MV Traffic 508	Unintentional MV Traffic 508	Unintentional MV Traffic 5,513	Unintentional Poisoning 1,314	Unintentional Poisoning 1,110	Unintentional Poisoning 11,002	Unintentional Poisoning 13,013	Unintentional Fall 21,414	Unintentional Poisoning 21,414
2	Homicide Unspecified 139	Unintentional MV Traffic 139	Unintentional Drowning 129	Suicide Suffocation 129	Homicide Firearm 1,987	Unintentional MV Traffic 1,987	Unintentional MV Traffic 1,987	Unintentional MV Traffic 1,987	Unintentional MV Traffic 1,987	Unintentional MV Traffic 1,987	Unintentional Fall 21,414
3	Homicide Other Spec. Classification 83	Unintentional MV Traffic 61	Unintentional Fire/Heat 59	Homicide Firearm 114	Unintentional Poisoning 1,072	Homicide Firearm 3,290	Suicide Firearm 2,867	Suicide Firearm 2,867	Suicide Firearm 2,867	Suicide Firearm 2,867	Unintentional Fall 21,414
4	Unintentional MV Traffic 139	Unintentional Fire/Heat 120	Homicide Firearm 98	Homicide Firearm 115	Suicide Firearm 2,270	Suicide Firearm 2,829	Suicide Suffocation 2,667	Suicide Suffocation 2,321	Unintentional Fall 2,558	Unintentional Suffocation 4,500	Suicide Firearm 21,334
5	Unintentional Suffocation 40	Unintentional Fire/Heat 117	Unintentional Other Low Respiratory 36	Unintentional Suffocation 105	Suicide Suffocation 2,010	Suicide Suffocation 2,402	Homicide Firearm 1,858	Suicide Firearm 1,795	Suicide Firearm 1,529	Unintentional Suffocation 3,980	Unintentional Suffocation 11,407
6	Unintentional Suffocation 29	Unintentional Poisoning 107	Unintentional Suffocation 34	Unintentional Suffocation 36	Unintentional Suffocation 507	Unintentional Poisoning 800	Suicide Firearm 1,274	Unintentional Fall 1,545	Suicide Suffocation 1,569	Unintentional Poisoning 11,917	Homicide Firearm 10,945
7	Homicide Suffocation 26	Homicide Other Spec. Classification 73	Unintentional Fire/Heat 52	Unintentional Other Low Respiratory 48	Suicide Poisoning 363	Unintentional Poisoning 675	Unintentional Poisoning 1,132	Homicide Firearm 688	Unintentional Poisoning 688	Adverse Effects 1,554	Suicide Firearm 6,808
8	Unintentional Fire/Heat 17	Homicide Firearm 47	Unintentional Poisoning 33	Unintentional Poisoning 33	Homicide Fall/Poison 314	Homicide Fall/Poison 439	Unintentional Poisoning 629	Unintentional Poisoning 629	Unintentional Poisoning 629	Unintentional Poisoning 11,317	Unintentional Suffocation 6,500
9	Unintentional Unspecified 16	Unintentional Other Low Respiratory 35	Unintentional Poisoning 22	Unintentional Poisoning 22	Unintentional Poisoning 229	Unintentional Poisoning 399	Unintentional Poisoning 363	Homicide Firearm 452	Homicide Firearm 538	Unintentional Poisoning 1,028	Unintentional Poisoning 5,845
10	Unintentional Fire/Heat 15	Unintentional Fire/Heat 36	Unintentional Fire/Heat 14	Homicide Fall/Poison 19	Unintentional Fire/Heat 177	Unintentional Fire/Heat 265	Homicide Fall/Poison 313	Unintentional Fire/Heat 442	Unintentional Fire/Heat 530	Suicide Suffocation 880	Unintentional Suffocation 3,400

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System. Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.

The Guide to Community Preventive Services

THE COMMUNITY GUIDE

What Works to Promote Health

Community Preventive Services Task Force

Community Guide | CDC

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Motor Vehicle

Reducing Alcohol-Impaired Driving: Ignition Interlocks

Ignition interlocks are devices that can be installed in motor vehicles to prevent operation of the vehicle by a driver who has a blood alcohol concentration (BAC) above a specified level (usually 0.02% – 0.04%). Interlocks are most often installed in vehicles of people who have been convicted of alcohol-impaired driving to give them an opportunity to drive legally.

Submit your email address to get updates on the Community Guide topics of interest.

<http://www.thecommunityguide.org/mvoin/AID/ignitioninterlocks.html>

Ignition Interlocks Reduce Alcohol-Impaired Driving

"We know that interlock devices can save lives. More widespread use of ignition interlocks will reduce alcohol-related crash deaths and injuries."
February 22, 2011



CDC Director Dr. Thomas R. Frieden

Community Guide Ignition Interlock Review Findings



- **Re-arrests** declined by a median of 67% while interlocks installed
- Interlocks appeared to be **equally effective for first offenders** as for repeat offenders
- **Upon removal, re-arrest rates** are similar to rates of offenders who did not install an interlock

<http://www.thecommunityguide.org/mvoi/AID/ignitioninterlocks.html>

Elder RW, et al. American Journal of Preventive Medicine 2011;40(3):362-76.

Community Guide To Increase Effectiveness



- Consider integrating interlocks into DUI courts or other comprehensive rehabilitation programs
- Consider intensive monitoring of offenders & performance-based criteria for removal of interlock

Florida Project



- Question
 - Does mandated substance abuse treatment for DUI offenders on interlocks, **based on their interlock breath tests**, reduce post-interlock recidivism?
- Background
 - Number of lockouts on interlock is predictive of recidivism post-interlock¹
 - In 2008 Florida initiated a treatment program tied to offender behavior on the interlock
 - Provide monitoring, treatment, and education to offenders with multiple DUI offenses on the interlock

¹Marques 2003. Behavioral measures of drinking: Patterns in the interlock record. *Addiction* 2003;98;13-19.

Florida Project



- Cooperative Agreement between CDC's Injury Center and the Pacific Institute for Research and Evaluation (PIRE)
- Florida Dept. of Highway Safety and Motor Vehicles
 - Milton Grosz
- PIRE scientists
 - Bob Voas – Scott Tippetts
 - Eileen Taylor – Paul Marques
 - Ted Miller
- CDC
 - Gwen Bergen

Florida Ignition Interlock Requirements

DUI Conviction	Ignition Interlock Requirement
First Conviction	If court ordered
First Conviction if 0.15 or above or minor in car	At least 6 months
Second Conviction	At least 1 year
Second Conviction if 0.15 or above or minor in car	At least 2 years
Third Conviction	At least 2 years
Four or More Convictions (Condition of Hardship License)	At least 5 years

<https://www.flhsmv.gov/ddl/IID.html>; Source: Section 316.193, Florida Statutes

Florida Administrative Interlock Program Treatment Policy

- Violation #1
 - Offender goes for an educational review of interlock operations and preventive measures
- Violation #2
 - Offender goes into monthly case management monitoring program including regular review of interlock logs
- Violation #3
 - Offender continues in monthly monitoring program AND goes into mandatory treatment program

Treatment Program



FLORIDA DEPARTMENT OF CHILDREN AND FAMILIES
MYFLFAMILIES.COM

- Substance abuse counselors are licensed by Florida's Department of Children and Family
- Provider assesses problem and develops treatment plan
- Individual or group therapy
- Typically lasts 8-12 weeks
- Offender **must complete treatment** to have interlock removed

<http://www.myflfamilies.com/service-programs/substance-abuse/samh/treatment>

Study Methods

- Data
 - Florida Department of Motor Vehicles and Highway Safety administrative database of interlock program records
 - Interlock records from the two Florida interlock vendors Alcohol Countermeasure Systems & LifeSafer
- Study Groups
 - Treatment: 640 offenders with 3+ violations* who completed **substance abuse treatment** on interlock and deinstalled
 - Comparison: 806 offenders similar to treatment group but had 1 or 2 violations and completed interlock period and deinstalled
- Analysis
 - Survival analysis using Cox regression proportional hazards model to examine post-interlock recidivism

*Violation is two "lockouts" within 4 hours (trying to start with a BAC > .05)

Characteristics of the Treatment and Comparison Groups of Multiple Offenders

	Value	Treatment %	Comparison %
Age	<25	3	4
	25-34	21	21
	35-44	27	29
	45-54	32	30
	55+	9	10
Sex	Male	78	82
	Female	22	18
Race/Ethnicity	White	76	75
	Black	9	8
	Hispanic	6	9
	Other/Unknown	9	8
3+ Prior DUI Offenses	N/A	45	58

Benefits of Substance Abuse Treatment for Multiple-offender DUI Ignition Interlock Users

- Overall: 32% lower recidivism among the treatment group after interlock removal over 30 months
- Prevented an estimated
 - 45 rearrests
 - 14 crashes
 - 10 injuries
- Economic benefit
 - Treated 640 DUI offenders at a cost of \$192,000 (\$300 each)
 - Prevented \$905,000 in crash costs
 - Net benefit = \$713,000

Conclusions

- Incorporating treatment into the ignition interlock program shows promise in reducing recidivism
 - Referral to treatment based on performance on the interlock
 - Offender must complete treatment to get interlock removed
- Increasing the number treated
 - Currently 2.3% of offenders are treated (3+ violations)
 - Study identified a group with similar risk of recidivism but <3 violations
 - Some suggested criteria
 - ≥ 6 lockouts
 - ≥ 4 morning lockouts
 - Any test with a BAC ≥ 0.15%

Thank You

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



CDC Resources

Reduce Post-Interlock Recidivism: Alcohol Ignition Interlocks Plus Treatment for DUI Offenders



What is the issue?

- An ignition interlock is a breath-test device that measures the prospective driver's blood alcohol content (BAC) and prevents a drinking driver from starting the vehicle.
- Ignition interlocks reduce re-arrests (recidivism) for driving under the influence of alcohol (DUI) offenders by nearly 70% while they are installed.
- Upon removal of ignition interlocks, recidivism rates are similar to those of offenders who have not had interlocks installed.

Does alcohol abuse treatment reduce recidivism after the interlock is removed?


In 2008, Florida mandated alcohol abuse treatment for DUI offenders with interlocks, based on the number of high BAC tests that prevented them from starting their cars. Offenders who committed three or more interlock violations were mandated to attend alcohol abuse treatment for 8-12 weeks. A violation was defined as two failed attempts to start the car with a BAC greater than .05% within a 4-hour period.

CDC collaborated with researchers at Pacific Institute for Research and Evaluation to compare recidivism after the removal of the interlocks of 640 DUI offenders who received alcohol abuse treatment with the control group of 806 similar offenders not mandated to treatment. The offenders in the treatment group experienced 32% lower recidivism during the 30 months following the removal of the interlock. Benefits of treating ignition interlock users over the 30 months following interlock removal:

- Lowered recidivism by 32%
- Prevented
 - 48 arrests
 - 14 motor vehicle crashes
 - 10 injuries

Economic benefit

Treated 640 DUI offenders at a cost of \$192,000
Prevented \$905,000 in crash costs
Net benefit = \$713,000



Increasing Alcohol Ignition Interlock Use
Successful Practices for States
Keep your state safe—Increase alcohol ignition interlock use.

Report at:
www.cdc.gov/motorvehiclesafety/impaired_driving/ignition_interlock_states.html

◀ An alcohol ignition interlock is a breath-test device connected to a vehicle's ignition. The vehicle will not start unless the driver blows into the interlock and has a blood alcohol concentration (BAC) below a pre-set low limit, usually .02 BAC.
