



The —Black —Crack —Report



The addiction you don't want to fight

Issue 16, May 2010

Upcoming Events

Our Next 2 Events:

- **Autobahn** June 19th & 20th (Sat / Sun)
 - We have some special activities that will be taking place at this event
 - **Saturday Evening FULL COURSE lapping.** This is in addition to a full day of driving. We will host a 1.5 hour full course lapping session for all drivers. This is included with your 2 day registration and is only a few \$\$ extra for a Saturday only registration. This should be a great session.
 - **Saturday evening safety contest.** Getting out of your car in an emergency.
 - Caged car group
 - Non-caged car group
 - And I expect there will be a bit of a party on Saturday evening at the track !!!!
- **Putnam Park** August 28th & 29th
 - Our normal 3 group event with plenty of track time available.

Registration for both events is open at www.1010thsmotorsports.com



**DON'T FORGET OUR
MAY 8TH & 9TH EVENT AT
PUTNAM PARK**

Registration spots still available.

Summer Event Safety

Dehydration

Having been a paramedic on a busy Engine company for the past 20 years, I have seen many cases of dehydration. You would think common sense could prevent folks from experiencing this, but it can happen quickly and in a manner that the patient is not even aware of it.

High Performance Driving on a hot day can quickly lead to dehydration, but it can be prevented.

Some things that can quicken the onset of dehydration:

- Staging in your car in the paddock, waiting to go out.
 - Especially for racers that may be staged for up to a ½ hour or more.
- Wearing a driving suit. Certainly a great safety item but you must know the hazards associated with this.
- Nervousness and stress prior to going out, especially for Novices
- Wearing long sleeve shirts and possibly gloves when in the car
- Wearing a helmet on a hot day. Much heat loss is transmitted via the head. You now just removed that avenue of heat escape when you put your helmet on. On hot days, wait until ready to go out to put it on.
- High heat conditions on track.



**DRINK THAT WATER
BEFORE GOING OUT**



The Official Wheel of 10/10ths Motorsports



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Symptoms of dehydration usually begin with thirst and progress to more alarming manifestations as the need for water becomes more dire. The initial signs and symptoms of mild dehydration in adults appear when the body has lost about 2% of its total fluid. These mild dehydration symptoms are often (but not limited to):

- **Thirst**
 - When the body becomes dehydrated a person may experience an increased sensation of thirst. This is a natural reaction when the cells start to dehydrate and is a sign that you should be concerned with. The easiest solution is to drink fluids but be careful which type of fluids you choose. Electrolytic filled fluids are the best because they replenish the cells better than water alone. Gatorade, PowerAde or Pedialite work well for this. Caffeinated beverages should be avoided as well as highly sugared drinks.
- **Dry Skin**
 - When the body becomes dehydrated a person may experience symptoms of dry skin and hair. When the body loses water, its ability to hydrate the skin is diminished and the tissue becomes less resilient. This can be tested by pinching the skin and seeing how long it takes to return to normal. Dehydrated skin may show a slow recovery time.
- **Skin Flushing**
 - Dehydration may cause a person to flush, which is to say that they become markedly red in the face and often other areas of the skin. Dehydration may cause a person to flush, which is to say that they become markedly red in the face and often other areas of the skin.
- **Dark Colored Urine**
 - Dehydration can cause dark colored urine due to the waste products being more concentrated when liquid is lacking in the body. If it is after lunch and you have not used the restroom, this is a sure sign you need some fluids.
- **Dry Mouth**
 - Dehydration is the loss of fluid in the cells of the body. This can show up as a dryness in the mouth scientifically known as Xerostomia. This feeling is caused by a lack of saliva in the mouth and throat and a drying out of the mucus membranes.
- **Fatigue or Weakness**
 - Physical fatigue or **muscle weakness** (or "lack of strength") is a direct term for the inability to exert force with one's muscles to the degree that would be expected given the individual's general physical fitness. A test of strength is often used during a diagnosis of a muscular disorder before the etiology can be identified. Such etiology depends on the type of muscle weakness, which can be true or perceived as well as central or peripheral. True weakness is substantial, while perceived rather is a sensation of having to put more effort to do the same task. On the other hand, central muscle weakness is an overall exhaustion of the whole body, while peripheral weakness is an exhaustion of individual muscles.
 - **Mental fatigue**
 - In addition to physical, fatigue also includes mental fatigue, not necessarily including any muscle fatigue. Such a mental fatigue, in turn, can manifest itself both as somnolence (decreased wakefulness) or just as a general decrease of attention. This can have very serious consequences when driving a car at high speeds on the track. If you are feeling tired or experiencing any of the above symptoms, it is time to get some fluids and skip a session on track. It is better to miss a session and drive another day, than going out and causing issues for yourself or the other drivers.

Bonus Information: Did you know that allowing yourself to be chronically dehydrated can increase your chance of having Kidney Stones? I am the master of disaster when it comes to Kidney Stones. ONLY YOU can prevent the same !!!!



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The effects of Dehydration should be recognized and corrected very quickly when at the track. If allowed to progress, it can become a serious medical emergency. If the dehydration is allowed to continue unabated, when the total fluid loss reaches 5% the following effects of dehydration are normally experienced:

- Increased heart rate
- Increased respiration
- Decreased sweating
- Decreased urination
- Increased body temperature
- Extreme fatigue
- Muscle cramps
- Headaches
- Nausea
- Tingling of the limbs

PREVENTION:

The average person loses between two and three liters of water a day through the breath, sweat, and urine. This number can increase or decrease based on the types of activities that a person engages in. Heavy exercise can cause a body to lose more than 2 liters an hour! To prevent dehydration you simply need to replenish the liquids that are lost throughout the day. Many resources and sites will tell you to drink 8 glasses of water a day, or give you a set number of liters to drink but the honest truth is that every BODY is different and only you will know how much your BODY needs. Only YOU can know how much water YOU need to be at your best. That's right, WATER. Not soda, not juice, not sugar-drinks. Pay attention to your fluid loss and take special care to replenish it as it is being lost. By the time you feel thirsty you are already dehydrated - you want to avoid becoming thirsty in the first place. Pay attention to the color of your urine, dark urine is usually an indicator that you are dehydrated.



Did You Know

10/10ths Motorsports, LLC is a Hawk Brake Distributor. I can get you some great brakes at a great price. With your 10/10ths driver discount, I can almost always provide you with the best pricing. They can be shipped to your house or brought to the track at our events. Email me or call if you have questions or need to order. Thanks !!!!! Your support will no doubt help 10/10ths Motorsports in providing track days for all our drivers.



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What does the SAE Viscosity rating mean?

Oil is a critical aspect of participating in HPDE events. I wanted to add a short discussion about oil for your understanding. Thanks to the Amsol site for some great information.

How do they come up with this rating . . .really?

Most of the time when viscosity is explained words are used that are too technical for the average person to quickly grasp. This leaves them still wondering what the viscosity numbers really mean on a bottle of motor oil. Simply put, viscosity is the oil's resistance to flow or, for the layman, an oil's speed of flow as measured through a device known as a viscometer. The thicker (higher viscosity) of an oil, the slower it will flow. You will see oil viscosity measurement in lube articles stated in kinematic (kv) and absolute (cSt) terms. These are translated into the easier to understand SAE viscosity numbers you see on an oil bottle.



OK . . .What does a 5W-30 do that an SAE 30 won't?

When you see a **W** on a viscosity rating it means that this oil viscosity has been tested at a **Colder** temperature. The numbers without the **W** are all tested at 210° F or 100° C which is considered an approximation of engine operating temperature. In other words, a SAE 30 motor oil is the **same** viscosity as a 10w-30 or 5W-30 at 210° (100° C). The difference is when the viscosity is tested at a much colder temperature. For example, a 5W-30 motor oil performs like a SAE 5 motor oil would perform at the cold temperature specified, but still has the SAE 30 viscosity at 210° F (100° C) which is engine operating temperature. This allows the engine to get quick oil flow when it is started cold verses dry running until lubricant either warms up sufficiently or is finally forced through the engine oil system. The advantages of a low **W** viscosity number are obvious. The quicker the oil flows cold, the less dry running. Less dry running means much less engine wear.

Obviously, cold temperature or **W** ratings are tested differently than regular SAE viscosity ratings. Simply put, these tests are done with a different temperature system. There is a scale for the **W**, or winter viscosity grades and, depending on which grade is selected, testing is done at different temperatures. See the Tables to the right below for more information.

If you look at the table, **SAE Viscosity Chart (High Temp)** you'll see that if a measured amount of motor oil flows through the viscometer at 210° F (100° C) faster than 5.6 but less than 9.3 seconds, then it will be considered a SAE 20 viscosity. Consequently, if a motor oil flows through faster than 9.3 and slower than 12.5 seconds, then it will be a SAE 30 viscosity.

SAE Viscosity Chart (High Temp) 100° C (210° F)		
SAE Viscosity	Kinematic (cSt) 100° C Min	Kinematic (cSt) 100° C Max
20	5.6	<9.3
30	9.3	<12.5
40	12.5	<16.3
50	16.3	<21.9
60	21.9	<26.1





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Now if you look at the table labeled **Winter or "W" Grades**, you can get valuable information on how the **W** or winter grade viscosities are measured. Basically, as shown by the chart, when the oil is reduced to a colder temperature it is measured for performance factors. If it performs like a SAE 0 motor oil at the colder temperature, then it will receive the SAE 0W viscosity grade. Consequently, if the motor oil performs like a SAE 20 motor oil at the reduced temperatures (the scale varies - see the chart), then it will be a SAE 20W motor oil.

If a motor oil passes the cold temperature or **W** (winter grade) specification for a SAE 15W and at 210° F (100° C) flows through the viscometer like a SAE 40 motor oil, then the label will read 15W-40. Getting the picture? Consequently, if the motor oil performs like a SAE 5 motor oil on the reduced temperature scale and flows like a SAE 20 at 210° F (100° C), then this motor oil's label will read 5W-20. And so forth and so on!

You have probably heard people say that they wouldn't use a 5W-30 motor oil because it is, "Too thin." Then they may use a 10W-30 or SAE 30 motor oil. At engine operating temperatures these oils are the same. The only time the 5W-30 oil is "thin" is at cold start up conditions where you need it to be "thin."

Why don't we just use a SAE 10 motor oil so we can get instant lubrication on engine start up?

The reason is simple: it would be a SAE 10 motor oil at 210° F! The lower the viscosity, the more wear will inevitably occur. This is why it is best to use the proper oil viscosity recommended by the auto manufacturer as it will protect hot and at cold start ups. Obviously a 10W-10 motor oil won't have the film strength to prevent engine wear at full operating temperature like a 5W-20, 10W-30 or 5W-30 motor oil for example.

Winter or "W" Grades			
SAE Viscosity	Low Temp (°C) Viscosity cP		Kinematic (cSt) 100° C Min
	Cranking Max	Pumping Max (NYS)	
0W	3,250 @ -30	60,000 @ -40	3.8
5W	3,500 @ -25	60,000 @ -35	3.8
10W	3,500 @ -20	60,000 @ -30	4.1
15W	3,500 @ -15	60,000 @ -25	5.6
20W	4,500 @ -10	60,000 @ -20	5.6
25W	6,000 @ -5	60,000 @ -15	9.3

Your Engine Oil at the track

Keep a close eye on your engine oil at the track. Always check the level in the morning according to your manufacturer's instructions. You will find that some car books say to add a bit more oil (approx. ½ pint) when doing HPDE events. I started doing that only to find that ½ quart in the oil catch can and/or simply blowing by into the MAF. I have since just made sure I was at the full mark and it has worked well.

Depending on your cornering speeds etc. you may get oil starvation due to sloshing of the oil in the oil pan. Every car type is different and you should monitor this to make sure you are getting the best performance possible.

Things like Accu-Sumps, Dry Sumps etc. can help but you need to have, or get some technical expertise on these items.

Also remember that you are driving your car at RPM's much higher than normal. Your oil change schedule should increase accordingly.



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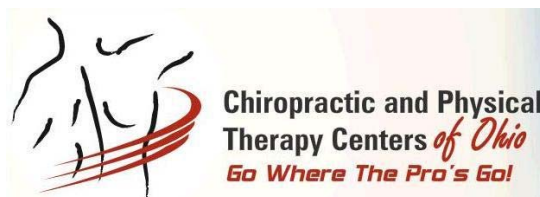
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