

BRAKING PROCEDURES

Braking is one of the most difficult skills for motorcyclists to master and one of the most critical. Even though technology has improved motorcycle design and braking enhancements, we are still observing the same crash causes.

Is your agency still instructing to apply front and rear brake together in an emergency stop? And if you lock up the rear wheel, ride it out until the end? Let's hope not, so what you're about to read will just be a refresher and another repetition in training.

Depending on rider skill, the front brake will provide 70-85% of the stopping power; therefore, instructing your officers to cover the front brake while riding is an accepted task. However, if any of your officers are covering the rear brake while operating, you need to change this bad habit or panic braking may occur.

I am aware of three studies on motorcycle crashes; 1) The Hurt Report which was published in 1981 on civilian crashes and causes 2) Institute of Police Technology (IPTM) conducted a study on Police Motorcycle crashes and causes in 1984 and 3) I conducted a study in 1998 in conjunction with IPTM on Police Motorcycle crashes and causes. All three studies identified the same number one cause of crashes, **Improper Braking** by over use of the rear brake and under use of the front brake.

Stress to your officers that good posture and looking at the horizon will assist in traction and stability on the motorcycle and do not attempt to turn while in a braking mode. Also, do not rely on the mechanics during scheduled service to maintain the recommended air pressure in your tires. Officers should check the pressure on a weekly basis.

Traditional Method:

Officer will apply the front and rear brake simultaneously bringing the motorcycle to a controlled stop to avoid the threat. If the rear brake is locked, keep it locked.

If the rear brake is applied first in a panic mode, the contact patch of the rear tire is being pulled by the weight of the motorcycle placing the rear into a skid and the operator then loses control of the motorcycle. A good example is when operating a police cruiser or personal vehicle and a threat occurs you quickly step on the foot brake. If this occurs on a motorcycle you may lock the rear wheel and lose traction and control.

Recommended Technique:

The officer should apply the front brake first by squeezing with all four fingers, thus having the weight of the motorcycle behind the front contact patch, then follow by applying the rear brake. Take the front brake to maximum use, and you will hear what is referred to as "wheel whine". If you lock the front brake, release immediately and reapply. If you lock the rear brake, do not release, reapply and simultaneously apply more front brake. While conducting this reapplication of the rear brake you regain control of the motorcycle and are able to make a safe stop. If you remain in a locked mode you will travel a greater distance with no control and may crash into the threat you're attempting to avoid.

Do not release the rear brake in a locked mode or you may be a victim of a High Side. A High Side occurs when the rider locks the rear brake and the motorcycle has lost traction and the rider has lost control. In a panic situation the rider then releases the brake, the tire regains traction, the motorcycle snaps back into position with the rear tire tracking the front. And with the motorcycle being an articulated vehicle, it may throw the operator from the saddle.

There may be doubt in your mind as you read this recommended technique, however, before discarding it, try it. I will not tell you that this is the only way to safely stop a motorcycle, but it is a very safe way.

During in-service training, operating in cone patterns is important to demonstrate the skills required for safe operation in a practical setting. However, if your agency is not conducting in-service training for braking then survival skills for the motor officer is not being provided.

Jim Polan has 21 years in Law Enforcement and currently a Motor Sergeant for the Fort Lauderdale Police Department in Florida. Sgt. Polan is an adjunct instructor for Institute of Police Technology and Management for Police Motorcycle Instructor and Advanced Motorcycle operation.