Everybody’s ability to execute a movement pattern with accuracy and precision is subject to degradation over time. Absolutely perfect execution of any movement pattern is a physical impossibility, and this becomes more obvious as the ability to quantitatively measure it against its theoretical model becomes better. Perfect execution is the goal, and athletes always shoot for the goal even though the most accurate attempt will be slightly wrong. This slight wrongness must not be allowed to accumulate.

It is an absolute certainty that technical execution in both training and performance will change slowly over time, slowly enough that the athlete’s perception of his own technique remains unchanged during the process. I called this phenomenon “Form Creep” in the second edition of *Starting Strength* back in 2007, as an analogy to “Mission Creep” in military operations. Far more than your programming, the two most important factors in your training progress are your technique and your training consistency. The correct technical execution of the movement patterns used in your training has the greatest impact on your progress, and along with not missing workouts correct technique ensures the improvement benefits we train for.

**Entropy**

Order decreases unless energy is added to the system – it’s The Law. If you think about it, “creep” may be the most common phenomenon across all human endeavor. Anytime anybody develops a degree of expertise in a field that requires the repetitive execution of a skilled activity, they accumulate an accompanying degree of confidence in their ability to do so. Confidence breeds comfort, comfort leads to relaxation, and relaxation produces a general loosening of the situation, handy when taking a nap but generally not conducive to high-level performance.

And since we use our brains and our bodies at some level in these endeavors, we are subject to the limitations thereof. Adaptation to a task is both a necessary thing and a limitation, because adaptation of brain and body is fundamentally a change, and change must be constantly supervised and directed if it is to remain beneficial.

For example, accounting procedures within an office are developed by the people in that department as the business grows, and unless they are constantly reviewed for efficiency during the growth process, creep will occur in directions that will be counterproductive.
Form Creep

And as your squat increases from 225 to 405, careful attention must be paid to your depth.

Form creep – at varying levels of severity depending upon whether the sport provides immediate feedback about the accuracy and precision of the movements – happens to every athlete, and the mechanism is the same. Perfect execution is 100% accurate and precise, and as such is obviously a theoretical construct. A deviation of 1% is usually not noticeable, but practiced at 99% over time it becomes the new embedded motor pattern. A 1% deviation from the new 99% pattern will also not be noticed, and 98% will become embedded. This process continues until the degradation becomes noticeable as an error in form, at which point it must be corrected.

The Role of the Coach

It typically becomes noticeable to somebody other than the athlete, because the athlete can’t tell his form is changing. It happens so slowly and in such small increments that his perception is that nothing has changed at all. Self-perception is always flawed. The ability to accurately and objectively assess one’s own physical performance – especially if heavy weights are involved – is virtually impossible to develop for most people, no matter how long they train or how carefully they pay attention. And this is why coaching is important for everybody, no matter how experienced, how advanced, or how elite they are. The coach’s eye is the Guardian of Correct Technique, for all sports and all athletes, and any athlete who trains alone will inevitably develop form creep. Guaranteed. Cross my heart and hope to die.

An athlete training alone should develop the habit of using all the video technology available to monitor technique as well as possible, but don’t be surprised when a coach finds something you can’t see on the video. We have always said that in-person coaching is the Gold Standard, and that if you absolutely have no access to it, you just do the best you can, which will involve video and online consultation. But a serious athlete makes on-platform or on-field coaching a priority as often as it is feasible.

Since our concern is barbell training, we will focus on the primary lifts, since nobody here cares if you do your curls wrong. Squats develop lateral asymmetries, depth problems, and back angle issues that interfere with the correct use of the hips. The press seems particularly susceptible to grip width errors (odd, since this is so easy to see), and elbow position problems. Pulls off the floor are plagued with low hips and stance width creep. The bench press has the fewest problems with form creep.

The Lifts

Squat depth always trends higher in lifters that have not been taught to really use the rebound out of the bottom. If this critical aspect of the movement has been sufficiently well hammered into a new lifter’s head, the rebound provided by good depth actually feels stronger than cutting it off, and this problem is far less likely to occur. But since most lifters are not started correctly, depth will be the most common form creep problem in most gyms. At WFAC, all members are taught to identify proper depth, both for themselves under the bar and when watching others in the gym, when they sign up,
and they are expected to correct depth for everybody else while they train. Even so, depth creep still happens – to me too, because I was not started correctly.

Asymmetry also creeps into the best lifter’s technique, and these in particular should be corrected before they cause an injury. You can tolerate, and even enjoy the false accomplishment, of a high squat, but asymmetries in bar placement, grip, hip and knee position, and stance will ultimately cause asymmetrical spinal loading, and this is really a bad idea if you’re lifting any kind of decently heavy load. They are hard to spot yourself, because as usual they have crept into your form on little cat feet, and if you’re in the habit of videoing your sets from only one position, they may be impossible to see if they occur on the off-side of the shot. Move the camera around.

The universal squat technique problem, during both the teaching phase for the novice and every single workout thereafter, is the artifact of decades of programming by Mr. Weider and his magazine, and from watching everybody else in the gym squat according to the conventional wisdom. It is the idea that squats are for “doing quads” and its attendant too-vertical back angle, designed to place the load on the knees and their extensors. Every Saturday morning at our Starting Strength Seminar we spend about an hour correcting this problem for almost everybody in the room, and it’s a tough one to keep from coming back.

All of us are to some extent visual learners, and most of us implement visual input by constructing a virtual model of the movement we are trying to perform – essentially a “movie” of ourselves doing the lift that plays in our head during or before the movement execution. The natural athletes among us are very good at physically copying the movie with our bodies, normal people not so well. But if we assemble the movie from incorrect cinematography and bad acting, the results will always be sub-optimum. And it’s hard to keep this shit out of your head if you see it every day (one reason it might be better to train at home).

The correct squat is a hips-dominant movement, and the hips must be far enough behind the weight of the loaded barbell to allow the back muscles to control the spine and allow the hips to do their job of driving the bar up. This requires that you sit back/reach back with your ass/lean over/point your nipples at the floor/point your asshole at the wall behind you/put your belly between your thighs/shove your knees out/do whatever it takes to get out of your knees and into your hips and back. It will involve your assuming a back angle that does not comport with the incorrect images seared into your central nervous system, and which you will fight to your dying breath even though your conscious mind knows better and you have taught yourself otherwise.

**Attention!!!**

Remember this critical axiom regarding technique correction: **as you add weight to the next set of a movement you are actively trying to correct, the tendency will be to revert to the familiar uncorrected movement pattern under the heavier weight – every set, every increase in weight, for the whole workout.** This is true even if the coach is standing there yelling at you, waiving his arms around, cueing you into the correction, and even if you are focusing all your massive intellectual
Form Creep

capacity on the change in movement pattern you know you need to make. This is the best reason not to let these things get out of hand – they are damned hard to fix once they’re screwed up.

Presses suffer from the same thing all the other lifts do: you start doing them from a position of comfort rather than from a position of efficiency. Presses must start with a squat stance, your chest up in maximum thoracic extension, with elbows slightly in front of the bar so that your forearms are loaded in tight compression, and with a tight grip on the bar that keeps it over the wrist and out of the fingers. The hips must start the movement after a huge breath, and the bar must stay as close to your face as you can keep it so that it heads back in the direction of balance over your shoulders.

Comfort

All these things are uncomfortable, and over time slop creeps in that kills your progress. Comfort is a powerfully seductive mistress, but you cannot have her under the bar with you. If she’s anywhere close while you’re pressing, your grip relaxes, your chest drops, your grip widens, your stance narrows, your elbows drop, the bar runs forward away from the shoulders, your breath gets smaller, and you start missing presses – because you’d rather be comfortable than tight. Even if your brain knows better, your body is a fool for her compelling, soul-destroying scent, and it has to be disciplined.

All pulls have a common problem, one that is often encouraged by coaches who do not understand pulls. For deadlifts, cleans, and snatches, if the hips drop, the knees drop, the knee angle closes, the hamstrings slack, the bar moves forward of the mid-foot, the shoulders move behind the bar, and pulling mechanics degrade. The best way to create inefficiency in your deadlift is to drop the hips. Yet dropping the hips is the most common form creep in the gym after high squats, even among people who have been taught to start in the correct position.

As with the press, comfort is the purpose of dropping the hips at the start of a pull. It is hard to start in a high-hips position because it tightens the hamstrings and makes it harder to set the low back in lumbar extension. Dropping the hips and closing the knee angle slack the hamstrings distally and makes it much easier to set the low back – and the price you pay for this is an incorrect, inefficient start position with the bar forward of the center of balance. And in fact, the second most common form creep in a pull is taking a stance insufficiently close to the bar at setup, taking a stance slightly behind where you should have your feet.

This forward position gets corrected during the execution of the pull because it has to, and the weight on the bar determines where this happens. The lighter the pull, the higher off the ground the
Form Creep

bar can be before it returns to balance over the mid-foot with the shoulders in front of the bar, while a heavy deadlift will roll back to the shins and the hips will rise to place the shoulders in front of the bar before it leaves the ground. In contrast, if the start position is correct, the bar comes off the ground in a vertical line with the hips and shoulders in the right position – when this happens, your hamstrings will be tight. You have to fight for this position, and it's usually uncomfortable. The experienced lifter will use this discomfort to identify the correct position, and form creep can be thus held at bay.

Stance width also tends to creep wider over time. It's more comfortable to take a wider stance – meaning the distance between the heels – even though a narrower stance with toes and knees out more is a better pulling position. This has to do with the tendency to drop the hips. Once you've made up your mind to keep your hips up and the bar back against your shins with knees and toes out, a narrower stance will make more sense to your hips.

Cleans and snatches, being both longer pulls and lighter pulls than the deadlift, are far more prone to form creep than any other barbell exercises. There are lots of places to make mistakes, and since the movement happens so fast, it's harder to perceive the problems. The good thing, especially about the snatch, is that it is one of those “immediate feedback” things – the indication that there's a problem that needs addressing is evidenced by the barbell on the floor instead of in your rack position overhead.

In contrast, the bench press has fewer problems with form creep, probably because of its shorter kinetic chain. Just a short trip down to the chest and back up, and it's done. Your grip can drift around a little, your chest-up position can erode, your feet braced against the floor can get forgotten, and you can start bridging your ass up off the bench. But in general, your bench press technique is more stable than that of the other lifts performed while standing on the floor.

The one thing common to all form creep problems is the covert nature of their development: they will be well along the way to wrong before they are noticed unless you are being coached in person every workout by a competent technique observer. An attentive online coach can spot them if they are reviewing your video every workout, and these are the only circumstances under which you should hire online help. But if you or your online coach seldom checks your depth, your start positions, and your bar paths, I assure you that technique problems have developed that you don’t know about, and that will have a significant impact on your progress.