LEVERAGE
& JOINT BREAKING

COMPANION**PDF**

LEGACY SERIES

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Executive Summary – The Big Idea

In violent situations, you want to cause injury.

One way to do this is to use leverage—mechanical advantage—to break joints.

There is only one way to break a joint: move it beyond the pathological limit, tearing the tissues that hold the joint together.

A joint has three degrees of freedom to take it to the pathological limit—a joint can be bent, twisted, or rocked to the side.

The three degrees of freedom, both forward and back, give rise to six base leverages.

All possible joint-breaking techniques involve one or more of these six base leverages.

Introduction

We asked the questions, “What do all joint breaks have in common?” and “How can this information be used in the realm of criminal violence?”

In answering these questions, this manual will give you the underlying principles that drive all joint breaking, while the video illustrates specific physical examples of the principles.

In presenting this information, we are not trying to debunk or contradict any training or technique out there; the goal of this text and video is to educate you in joint breaking. If you have previous experience or training in techniques that affect joints, this information will enhance your skills and give you new ways to evaluate and apply what you already know. If you have no experience whatsoever, this information will give you the fundamental tools required to break every joint in the human body.

Either way, our goal with TFT is to give you the tools to allow you to come out the other side of a violent situation alive and well.

There are many places where joint breaking is not desirable or appropriate, the most obvious being sporting competition and certain law enforcement applications. In the competition ring, the goal is to best your opponent with skill, speed, strength, endurance and cunning—not by causing life-long, debilitating injury. Likewise for LE, applying a joint-lock/pain-compliance come-along may be more appropriate than actually breaking a suspect’s arm, depending on the situation.

To break a man’s joint is to do violence to him. Hence the only time this information is appropriate and useful is in violent conflict—a situation where the goal of the people involved is to maim or kill.

The Goal of This Product

The world of joint manipulations for combat sports and martial application is immense and complex. It can be daunting for both the newcomer and expert alike, with hundreds of systems containing thousands of discrete techniques. If this is the case, why would TFT want to compound things by adding to the problem?

Because complexity is a lie—complex systems arise from simple rules.

Take the game of chess for example. One way to learn how to play chess would be to memorize all possible games—a difficult task, as there are more possible games of chess than there are particles in the Universe. You’d be much better off learning the few simple rules that all those possible games have in common—the rules of chess.

You would then be able to derive every single possible game.

The goal of this product is to give you this same power over the realm of joint breaking. Instead of making you memorize thick books and hours of video—with thousands of techniques—we’re going to show you the few simple rules that govern all possible joint breaks.

You will then be able to break every joint in the human body in every way possible.

Our goal is to de-mystify and simplify joint breaking—to show that it does not require long training or great coordination, physical fitness or even particular skill. Anyone can do it.

All it takes is a little knowledge.

How to Use This Manual

This manual is meant to be used in conjunction with the video. Either one used alone will lead to gaps in understanding. The manual itself goes into great detail on points that are merely mentioned in the video; likewise, reading the manual without seeing the principles applied to a human body in real-time makes the whole affair unnecessarily abstract.

The manual is the thought—but the video is the action!

Training Methodology and Safety Issues

Understand that the principles and techniques illustrated in this manual and video product are for a singular purpose: to cause serious, debilitating injury and/or death.

With that in mind, understand that practicing them is dangerous.

To minimize this inherent danger, you will need to:

- Work with a partner who understands and can successfully model the basic concept of the Effect State (spinal reflexes)
- GO SLOW
- Work in an environment that is appropriate for safe practice (or 'look out for the coffee table!')
- GO EVEN SLOWER THAN THAT
- Make sure you never, ever exceed the pathological limit of a joint in practice—this will, without exception, cause injury
- DID WE MENTION GOING SLOW?

Tapping Out

You are not trying to make your partner submit—you are modeling the breaking of a joint to cause injury. On the street you don't want the guy with the knife to quit—you want to break him.

To this end, tapping out is not a part of the training methodology.

You are not going to let go because your partner taps out, but because you choose to. Your partner does not need to tap out because you are not going to take his joints to—or past—the pathological limit. If the leverage is set properly, all it does is break. There's no need to 'test it' by hurting your partner. It won't just be painful—testing it will cause injury.

The best way you and your partner can give feedback on a leverage is to growl or grunt as the joint tightens. You can then visualize following all the way through to break the joint, seeing it in your mind as it would be on the street. But without injuring your partner.

So get to it—but use common sense, take care of your partner, and slow it down so you can get it done right!

Summary

Our goals for you:

- De-mystify joint breaking
- Teach you the simple rules of joint breaking
- Give you the tools to survive a violent situation

Our training rules:

- Go slow
- Work with a cooperating partner
- Work in a safe place
- Do not accept "tapping out"
- Do not surpass the pathological limit
- GO SLOW

Target Focus Training — Violence as a Survival Tool

The goal of violence is injury.

Target Focus Training is a training methodology by which you can learn to wield violence as a survival tool. In short, this means we can teach you how to injure people.

TFT is not self-defense or a combat ‘style.’ We are not interested in defending against an ‘attacker’ or competing with a person’s skill, speed, or physical ability. We are not interested in modeling all the possible variables found in a ‘fight.’ Instead, we are only ever interested in injuring people. Real criminal violence is not about competition, it is about destruction.

Violence is the use of physical force to cause an injury.

A ‘violent situation’ would be one in which the parties involved are trying to injure each other, typically with the prevailing party maiming or killing others.

Simply put, the best way to survive a violent situation is to be the one doing it.

Effect-State — Targets & Spinal Reflexes

Nothing changes in your favor until you injure him; once you've injured him, all that's left to do is take out an injured man.

You will be causing injury by striking or otherwise affecting targets—anatomical weak points of the human body that are naturally susceptible to trauma, typically with cascading effects to other body systems, causing an interruption of normal functioning. For example, a blow to the solar plexus will interrupt normal breathing; he can't walk with a broken knee; gouging the eyes will blind him.

In addition, there is a single universal effect that all targets have in common: a spinal reflex in response to injury.

A spinal reflex is an involuntary, pre-programmed movement, specific to each target, that is activated in response to injury through a threshold switch in the top of the spinal cord.

It does not involve the brain proper, or conscious thought. If you kick a man in the groin, rupturing one or both testicles, he will bend his knees, put his hands over his groin, and bend forward at the hips with his chin up—even if he doesn't want to.

Knowing targets, how to affect them to cause injury, and the associated spinal reflex grants you two major advantages:

1. You deny him control over his own body
2. You can predict what he will do next—by making him do it

For example, say you're facing a man who is bigger than you, stronger than you—hell, he's even meaner than you. And he has a knife. How could you possibly overcome his superior size and strength? His cruel tenacity? And what's he going to do with that knife?

All those question marks vanish with a hard boot to the groin—his size and strength are meaningless as he momentarily loses conscious control over his body to execute a picture-perfect groin reaction. He's still mean—but he can't do anything with it. His will has been trumped by the threshold switch at the top of his spine.

And what's he doing with that knife?

He's doing a groin reaction is what he's doing.

Find your next target while he's busy, injure him again, and repeat until satisfied.

The Triad of Violence: Penetration–Rotation–Injury

Techniques are worthless; how many ways are there to kick a man in the groin? There's only one way to kick a man in the groin—**as hard as you can.**

You can be in front of him, off to his side, behind him, standing, sitting, on the floor, etc. Though there may be thousands of techniques for getting it done, the base answer is always the same. As hard as you can!

Beneath all possible violent techniques there are three common elements. Effective violence starts with **penetration**, drives it home with **rotation**, and winds up with **injury**.

Penetration

In order to injure someone with your bare hands, you need to be near enough to touch him. Penetration gets you to him and through him and beyond—getting you right on top of him, dominating his space, driving him off balance, and maximizing kinetic force for injury. You want to penetrate so you're standing where he used to be.

Rotation

This is the follow-through; rotation is how you're going to take his balance and beat him down with it. Leverage, whether you're throwing him or using it to break joints, is an application of rotation.

Injury

The ultimate goal of violence—this is what you get when you penetrate to a target and rotate through it. And then he's locked into spinal reflexes as discussed above.

Let's take a look at how the three snap together into the triad of violence with the following example:

You step in and punch him in the solar plexus, then grab his hand and break his wrist, slamming him down into the concrete. This is really two iterations of penetration–rotation–injury:

1. You step in (penetrate through his space) and punch him (rotating your torso to throw the punch and follow all the way through) in the solar plexus (causing injury to the target).
2. You then grab his hand (penetrating) and break his wrist (with rotation and complete follow-through to cause the injury—as well as additional injuries from the fall).

Effective use of violence as a survival tool will always include this triad—it powers everything from striking to joint breaking and throwing. It exists in the use of extraneous tools like knife, stick, curb, etc. The triad of violence makes it all work for you.

In Summary

Violent techniques have three components:

- [ ] Penetration (maximizing force)
- [ ] Rotation (follow-through)
- [ ] Injury (results)

The Lever: The Universal Tool

Give me a place to stand and with a lever I will move the whole world. —Archimedes

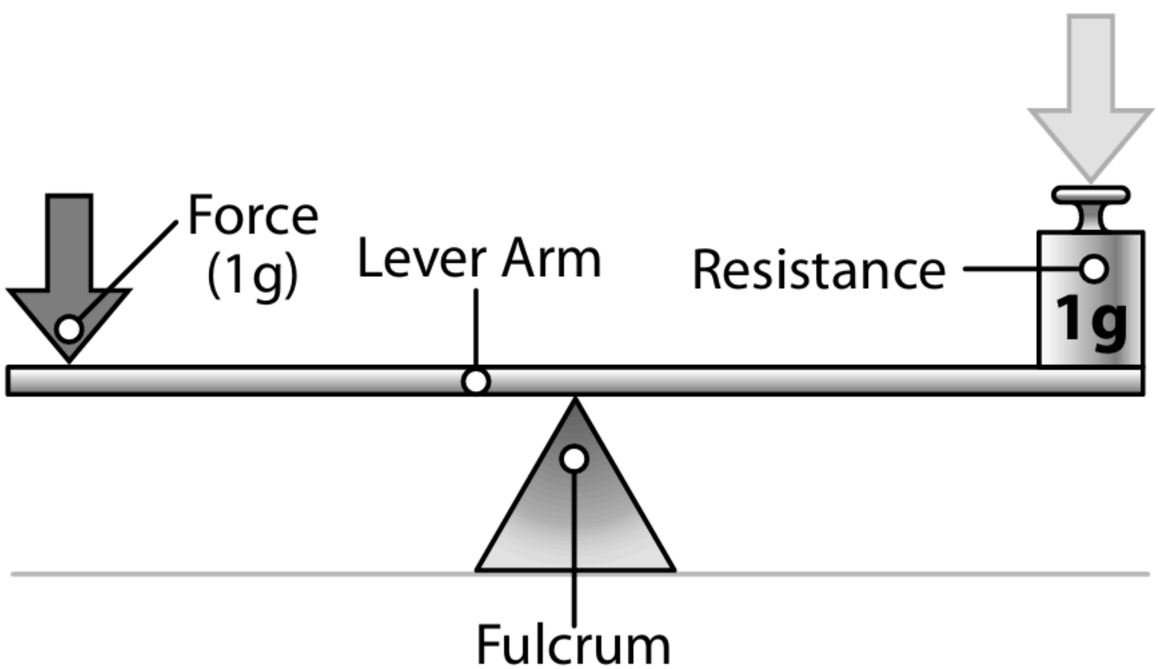
The lever is the simplest machine, and one of the oldest utilized by humans—especially when you consider that our bodies are full of them. The human skeleton is a fine example of the power of levers—an ode to mechanical advantage writ in bone and sinew. Levers, and the mechanical advantage they afford, are the basis of human movement—and are therefore used for everything in violence. They magnify the power of strikes, they allow a small person to throw a much larger one, and they give us the ability to generate and transmit the forces necessary to break joints. Understanding what makes a lever—its parts and how different arrangements of the parts have different advantages—will allow you to critically assess your execution of techniques. Simply put, you will be able to tell whether or not you can break a given joint from where you are, with what you've got. And if you find you cannot break the joint, this information will let you change what you are doing to get the break you want.

There are three parts to a lever: the fulcrum, the force and the resistance (fig. 1-1). The fulcrum is the point that the lever arm pivots or turns on; the force is where effort is applied at a distance from the fulcrum while the resistance acts at yet another discrete distance from the fulcrum.

There are three classes of levers, each with a unique arrangement of the three components:

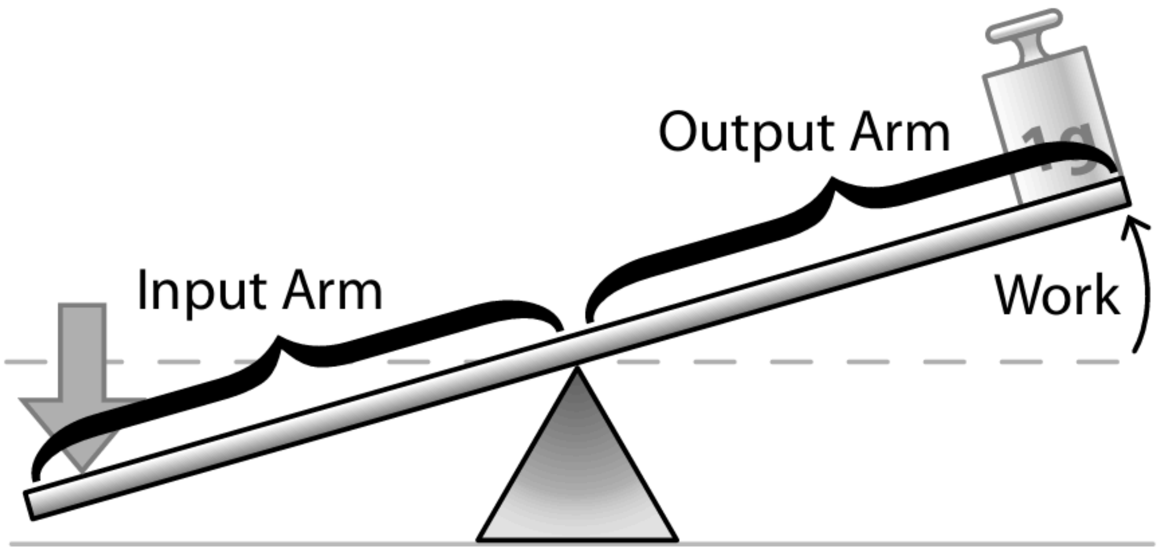
First Class

fig. 1-1: First class lever — fulcrum in the middle



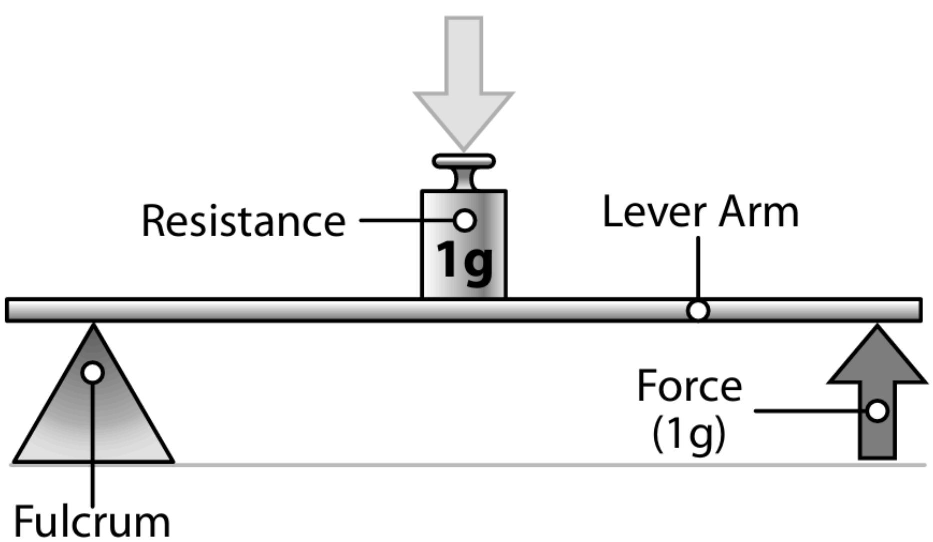
This is the lever most people think of when they hear the word ‘lever.’ The fulcrum is between the force and the resistance, like a see-saw, typically with a longer arm on the force side. The force and the resistance move in opposite directions, i.e., if the force is applied downward, the resistance is moved upward. This kind of lever is typically used to overcome large resistances with relatively small amounts of force.

fig. 1-2: First class lever (cont.)



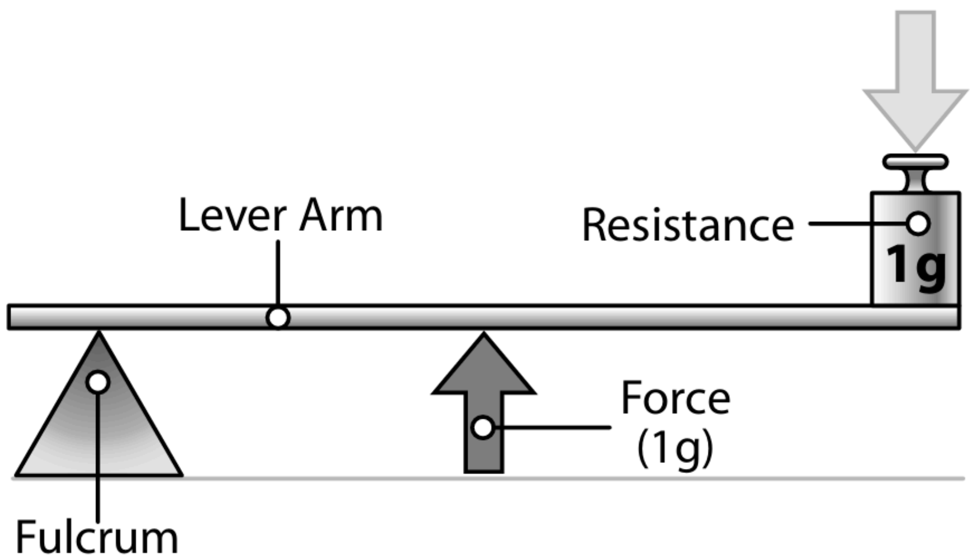
It is important to note that the longer the force (or input) arm is, the greater the mechanical advantage, hence the greater the work done at the other end. This is what Archimedes spoke of in his quote—and in a grand act of showboating he used a long first class lever to single-handedly move a ship. You will be using the power of the first class lever for most joint breaking. Other examples of first class levers include crowbars, using a screwdriver to open a can of paint, and scissors.

fig. 1-3: Second class lever — resistance in the middle



Here the fulcrum is at one end, the force is applied at the other, with the resistance somewhere between the two. The wheelbarrow is an excellent example of a second class lever. The force and the resistance move in the same direction, i.e., lifting on the handles of the wheelbarrow lifts the load of dirt as well. Examples of second class levers include doors and bottle-openers.

Fig. 1-4: Third class lever — force in the middle



This lever allows you to trade force for speed. The fulcrum is at one end, with the resistance at the other while the force is applied somewhere in between. Your elbow joint is a third class lever—in the split-second it takes your biceps muscle to contract one inch your forearm and hand will move through an 18-inch arc. The force required to do this is large, however. One way to experience this is to take a door (a second class lever) and try to close it as a third class lever: shut the door by pushing just a few inches from the hinges and SLAM! It takes far more effort than using the knob, but what you spend in force you gain as speed.

The only thing you need to remember about levers: Force applied to one part of the lever is transferred across the lever arm, resulting in work done on the resistance at another part of the lever. Simply put, pushing on one end makes things happen at the other.

In Summary

A lever is made up of:

- Lever arm
- Force
- Fulcrum
- Resistance

There are three different classes of levers:

- Class One Lever: fulcrum in the middle
- Class Two Lever: resistance in the middle
- Class Three Lever: force in the middle

Joint Breaking

The goal of using leverage against a joint is to break or ‘tear out’ that joint.

That’s great—but what does it mean? What are we really doing here?

When we say we are tearing out a joint, we mean that you are tearing the strong bands of connective tissue that hold the joint together and allow it to function. You are tearing ligaments and snapping tendons.

Ligaments are tough, fibrous bands of tissue that connect bone to bone. When you tear ligaments, the alignment of the bones on either end of a joint is compromised, making the joint more likely to dislocate and less likely to work properly.

Tendons are the ropes that lash muscles to bones, allowing the joint to move. The tendon-to-bone connection is so strong that sometimes the bone itself will fail before the tendon or muscle tears, resulting in a sliver of bone peeling off. Either way, when you tear tendons, the muscles can no longer pull on the bones—the joint cannot move properly.

The Pathological Limit — The Point After Which Injuries Occur

Joints can only move so far; each joint in the human body has a specific range of motion. Once a joint ‘locks up’ at the end of that range of motion, any further motion in that direction will begin to tear the joint apart, resulting in an injury. This is your goal.

To break a joint, you must use leverage to drive it from the normal place where it locks up, past the pathological limit—and beyond. This is the only way to ensure that you tear tendons and/or ligaments; this is, by definition, the only way to break a joint.

Why Break Joints?

In violence, pain or discomfort matter for nothing—injury and interruption of normal body function do. Injury decides who lives and who dies. It’s the only thing that matters. The difference between pain and injury is stark.

Pain hurts, no doubt about it. But pain is also subjective; some people have very high pain thresholds that leave them little affected by it. Others may be on chemical depressants. The main problem with pain is that it doesn’t work on everyone, all the time.

Injury, in this case a broken joint, has several immediate advantages:

- **A broken joint causes a spinal reflex reaction.**
  The injury will force his body to move in an involuntary, predictable fashion. Typically, this will involve him trying to move in such a way so as to reduce the residual tension in the joint.

  The body will attempt to give itself more room to extend the pathological limit. Joint breaks that come up from under his center of gravity (with his body weight in opposition to the leverage) will make him sit up or rise up on his toes. Joint breaks that drive down from over the top of his center of gravity will make him bend over, drop to one or both knees, or go to the floor.

His body will never make it out of the joint break, of course—the spinal reflex is in response to the joint having already been broken.

This is akin to him driving toward a yellow light and then romping on the gas when it turns red!

He's just about as likely to make it through the intersection on the yellow as he is to get out of having already had his joint broken. To truly get out of having his joint broken, he would need to be able to make his entire body fly around the fulcrum point at the same rate at which you crank on your end of the lever—a physical impossibility (outside of comic books).

Note also that if he's currently using the joint to stand (as in the ankle or knee), breaking it will take him down—a classic base-break throw with added traumas as he hits the ground.

- **A broken joint is objective.**
  That is, outside parties can agree that an injury has occurred. When a football player on TV takes a full-body hit to the side of his knee that folds it in half the absolutely wrong way, everyone watching knows exactly what just happened—we all feel the same chill freeze our blood simultaneously. We are not troubled with the subjectivity of pain—does it hurt? Who cares—it's broken!

- **A broken joint does not function.**
  Once broken, joint recovery is impossible. He can't run with a broken ankle, he can't point a gun with a dislocated shoulder, he can't breathe with a broken neck. This is the big reason—after the spinal reflex—why we bother breaking joints at all. You are literally tearing his body apart and denying him the use of it.

  A broken joint is useless for two reasons:

  1. A joint without traversing connections cannot be activated

  2. A disintegrated joint, if activated, cannot transmit loads effectively

Let's look at the football injury above—the bent-sideways-all-the-way-to-the-gridiron knee. If he's torn tendons, then the attendant muscles can't pull on the bones to flex or extend the knee normally—there's no power getting to the knee to make it work.

If he's torn ligaments and manfully makes it to his feet in spite of the pain, when he goes to run, the ends of the femur and tibia are going to slide around in relation to each other as he puts his weight on the leg—making it dislocate, buckle, and down he goes again. And we wince into our chips and guacamole.

This kind of injury, when done in a violent situation, would probably result in tearing both tendons and ligaments, rendering the knee perfectly useless. There is also a good chance of additional traumas to his wrists, elbows, and shoulder as he reflexively reaches out to break his fall, as well as possible concussion from bouncing his head off the concrete should he fail.

All this from a single joint break. All this for the investment of a single stomp to the knee.

Simply put, this kind of break—a base leverage 5 knee break—would put the man down and keep him there.

This is why you want to break joints.

In Summary

When you've broken a joint, you have:

- ☐ Torn-out connective tissue
- ☐ Surpassed the pathological limit
- ☐ Caused a spinal reflex
- ☐ Created an objective injury
- ☐ Ruined the joint

Joint Breaking Part 2: What Does It Take to Break a Joint?

Breaking a joint is not easy—it doesn't happen just because you'd like it to. Tendons and ligaments are very tough; joints themselves are put together in such a way as to minimize the chances of getting torn out or broken. In order to overcome these factors, it's going to take everything you have—your mind and body working in conjunction with the physical laws of the universe—to get it done. It's not easy, but it is eminently doable when you combine the will to get it done with sufficient force applied through proper leverage.

It Requires Will — Intent

Simply put, you have to want to injure the man. If you go to apply a leverage technique against a man's elbow but you lack the will, desire, and drive to actually bend his elbow backwards until it snaps—then you won't really injure him. The elbow will not break by itself.

Technique without intent is useless in violent conflict.

In order to break the elbow, you have to want to break it—more than anything else in that moment. You have to want to bend it backwards, tighter and tighter, until with a **SNAP** you hear (and feel) the elbow give way, bending all wrong, with his biceps cramped up hard and small like a baseball at the top of the 90˚ angle—while he screams like you may have never heard a person scream before.

In order to break the man's elbow, you have to want that. All of it. Now.

Wanting to "apply a leverage technique" is not what we are talking about. You have to want to injure him, to cripple him, to make him scream from his guts in pain, fear, and horror at what is being done to him.

You have to want this more than life itself.

The will to get it done is a self-fulfilling prophecy. Anything less than that is useless to you. If you don't want to break joints, to cause life-long, debilitating injuries, then you're just wrestling—and you'd better hope for three things:

1. That he thinks it's a wrestling match, too
2. He doesn't have friends to lend a hand (or boot)
3. That you're a better wrestler than he is

If you're wrong on any one of these three things, it's not going to go well for you.

In a social or even anti-social situation, it's all cool. In violent conflict—that means you're dead.

It Requires Force — Effort

Wanting to break the joint sets the stage—now you need to generate the forces necessary to overcome the tensile strength of the connective tissues. Remember, they're tough. You're going to need something big and heavy to overload that joint.

Luckily, it's you.

Your bodyweight is the biggest, heaviest tool you can swing around and crack joints with.

You are the big-ass sledgehammer.

Even if you are huge and strong, you will be able to generate far greater force by dropping your bodyweight in the gravity well than with muscular strength alone.

Imagine trying to break someone's elbow by grabbing their shoulder and wrist and bending their arm backwards with your bare hands. Maybe some people could do this (what a feat of strength!), but most of us can't. Now imagine taking his arm, grabbing his wrist with both hands (palms up), and clamping the back of his elbow in your armpit. Now imagine suddenly sitting down and laying back as you pull up on his wrist.

The elbow breaks for two reasons:

1. By dropping your bodyweight, you generate forces greater than the elbow can handle

2. You applied the force with proper leverage

If you have superior muscular strength, that's great. But no matter how strong you are, you can generate more force by dropping your bodyweight. In fact, if you are big and strong, you have even more bodyweight to bring to bear.

Also, your strength is a variable—you could be fatigued, drugged, or weak from blood loss—but your bodyweight is a constant. You can always count on it.

The bulk of the Earth sucks at your mass just as hard whether you are strong or not. Muscular strength is best used to clamp down on the lever arm and keep everything tight.

And if you aren't big or strong, it doesn't matter. As long as you weigh more than 100 lbs., you can generate all the force required to break any joint.

As for how to drop your bodyweight to break joints, you have the obvious method above—sit or lay down—but what if you don't want to go to the ground?

The simplest way to use your bodyweight as a hammer is to **bend your knees**. Remember to keep your back straight—if you bend forward to drive the break, you're only getting half your weight involved (your thoracic torso, arms, and head).

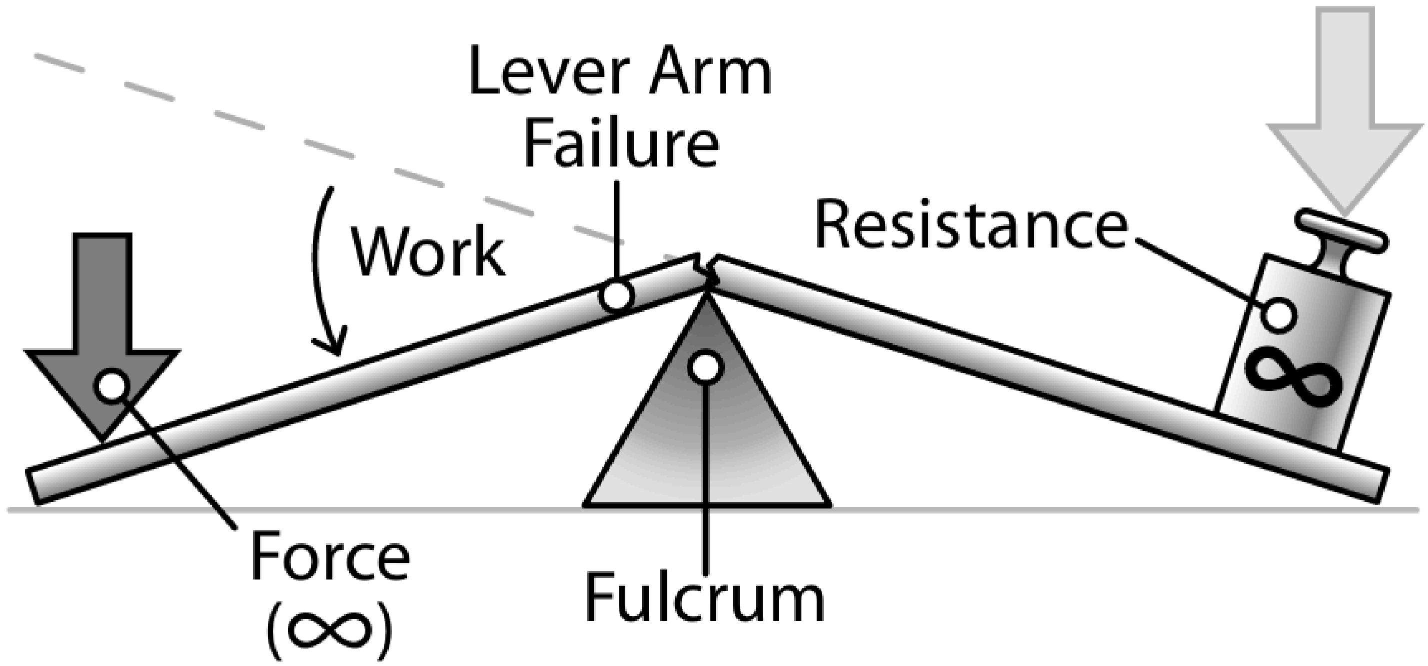
If you keep your back straight when you bend your knees, you'll get your **entire** bodyweight.

What about joint breaks that come up from under his center of gravity? Obviously, you can't bring your bodyweight to bear in this case—so you will use **his**. You will drive the break up under his weight so that his weight provides the resistance, hanging in opposition to the direction of the break, tearing out the joint.

In fact, his bodyweight and its inertia are always in opposition to any joint break, and a chief reason the joint breaks.

Remember the parts of a lever—we have a **fulcrum**, an **input arm** where force is applied, and an **output arm** where work is done on the resistance. Typically, you drop your bodyweight at the input arm, generating the force which is then transferred across the lever to do work on his bodyweight at the other end.

Fig. 2-1: Lever arm failure



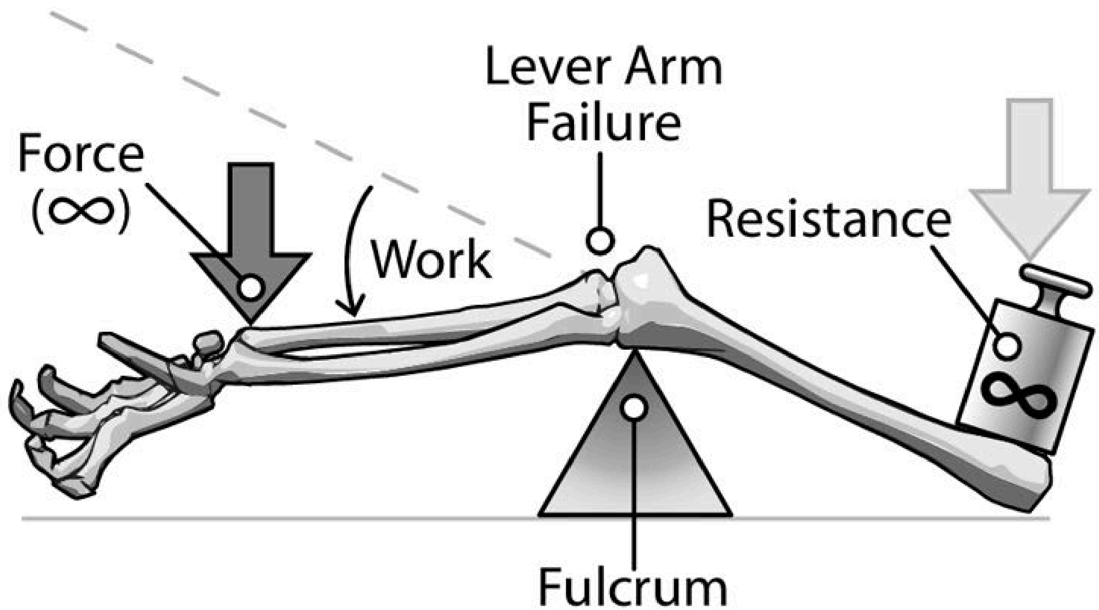
But we don't really want to do work on his bodyweight. We want the **lever itself** to fail.

What we want to do is generate forces greater than the lever arm can stand—with his weight at one end and yours at the other—so that it **blows at the weakest point**, and with joints being weaker than bone, we get a broken joint.

So you're not trying to transfer force across the fulcrum to move his body—you're betting that the opposition of force in one direction and resistance in the other creates forces greater than his connective tissue can withstand, thereby tearing out the joint.

You want the forces acting on the lever to be **greater than the structural integrity of the joint**.

Fig. 2-2: Lever arm failure: elbow



It's like wedging one end of a stick under the foundation of a building, sticking a brick under the middle, and bearing down. You know you can't move the building—but you can be sure the stick will crack across the brick.

Dynamic Breaks

Now that you've generated force with bodyweight, how do you ensure the application of that force will be sufficient to tear out a joint?

By breaking it dynamically.

Simply put, you are going to tear it out like a strike—in a punching, kicking, or snapping motion. Sudden and sharp and final. All at once, in a split second. In doing so, we gain two advantages:

1. His inertia will secure the far end of the lever arm

2. Flexibility is nullified

As we established, application of your bodyweight (on the input arm) against his bodyweight (on the output arm) dynamically (as a strike) yields huge forces on the lever arm itself. As connective tissue integrates the in & out arms across the fulcrum and is pre-stressed to the pathological limit, high tensile forces cause trauma to the connective tissue.

Which is to say: if you do it hard and suddenly, joints break.

The important feature of dynamism is the **sudden onset** of huge forces. If the forces are generated slowly (as in safe practice), his body will move ahead of the pathological limit and save itself from harm.

Also, if the forces do not overwhelm the structural integrity of the connective tissues, the lever arm remains integrated and does what it's designed to do: move his mass. You don't want that.

You want a **broken** joint.

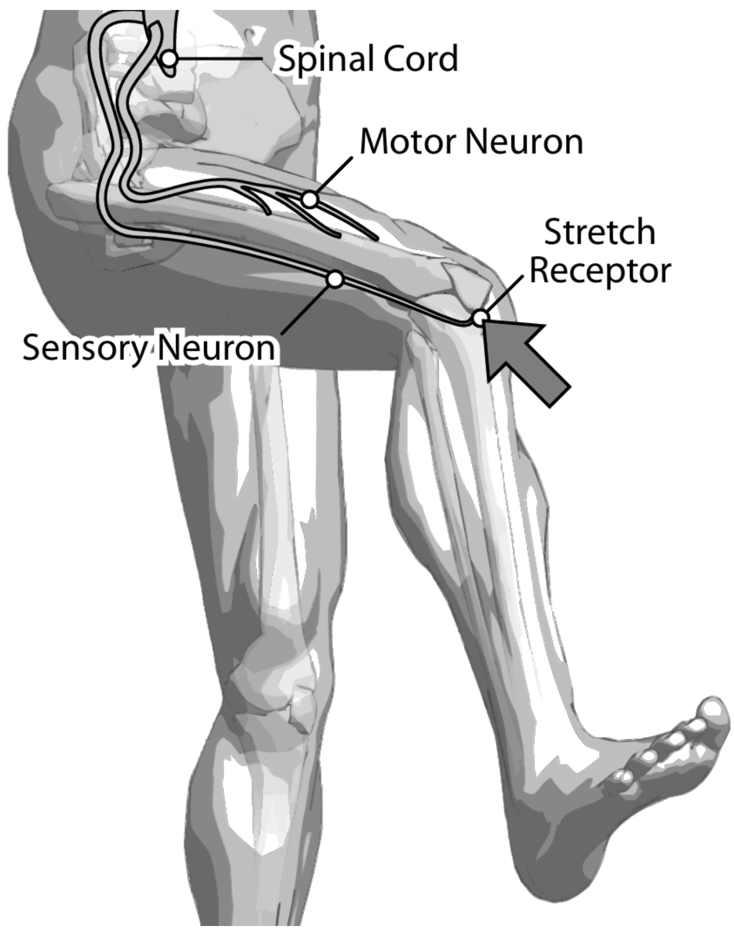
When the load of forces comes on suddenly, his inertia becomes a factor—anchoring the far end of the lever arm.

If you wanted to break a stick, one way is to lay it against the curb with one end up and the other in the street—then stomp on it. In joint breaking, **his inertia behaves like the curb**. If you apply the joint break slowly, his inertia is overcome and he moves—there is no curb. But if you strike past the pathological limit, **his inertia acts like the curb**, anchoring the far end—and something in between is going to snap.

Loading forces dynamically also **nullifies flexibility**.

Some people are very flexible, and on the surface this seems to make it more difficult to tear out joints. But muscle tissue, when suddenly stretched beyond its range, **grabs** or tenses to pull the joint back into position. This happens involuntarily—it is a reflex. Like when the doctor taps your knee and your foot kicks out.

Fig. 2-3: Knee jerk reflex



When you apply a joint break dynamically, the muscles that cross the joint **tense up**, pre-loading the joint and **facilitating the tear**.

The joint will tear earlier in the arc of motion, regardless of how flexible the individual is.

When forces are loaded slowly, the Yoga master's tissues stretch nice and easy. But when it happens suddenly, the muscles grab—and even Yogi Kudu is going to need an extra purple pillow for his dislocated hip.

To sum up dynamism:

There is no 'gentle way' to break somebody's neck.
When done properly, joint breaks look just like strikes.

It Requires Proper Leverage — A Lever Arm

All that intent wielding all that force will come to nothing without a proper lever arm to overstress. You need a good, solid lever arm to bend to your will. You need an input arm, a discrete fulcrum, and an output arm.

Without mechanical advantage, all that force gets dissipated into so much heat and noise. And while that may seem dramatic, it doesn't get you that broken joint.

You'll get that broken joint by using one of the six base leverages discussed later in this manual and illustrated in the video. The base leverages allow you to **transfer force efficiently** and ensure you get the **biggest return** on the force you generate.

In this case, that return is **a broken joint**.

In Summary

To break a joint you have to:

- ☐ Want to break the joint (intent)
- ☐ Generate force (effort & bodyweight)
- ☐ Punch it past the pathological limit (dynamism)
- ☐ Have a proper lever arm (leverage)

Operational Considerations — Actually Getting It Done

Now that you know what it takes to break a joint—intent, force, and a lever arm—let's look at some of the details that make sure you can get it done.

Prior Trauma — Injure Him NOW

No one is going to let you walk up and grab their hand, set a leverage, and break their wrist. You're going to have to injure him first.

It takes injury to get to the joint—gouge him in the eye, kick him in the groin, then grab and break his wrist. When you injure him and force him into a spinal reflex, he will be unable to prevent you from breaking the joint of your choice. You will simply include the joint break as one in a series of injuries. The broken joint is just another rock he bounces off of as he tumbles down your rhythmic cascade of harm.

Always remember: if you want to break a joint, you have to injure him first.

It is important to note that in an absolute sense, there is nothing special about a broken joint versus other injuries. It is the same as a blown-out eye or ruptured testes. All three force him into a spinal reflex, interfere with normal bodily function, and strip abilities from him. It is no more or less difficult—or desirable—to break his nose than break his leg. In violence, an injury is an injury.

Efficiency — Quality of the Lever Arm

A flexible lever arm is no good for getting work done. You wouldn't want a rubber breaker bar—you want one made out of steel. The rubber one will not transfer forces efficiently. Much of the force you put into your end will be used up in bending the lever arm. The steel one, on the other hand, doesn't bend nearly as much, transferring more of your force across to the resistance end.

We can take this idea right into the human body: you're not going to break joints with a floppy lever arm—you need a nice rigid structure to transfer force across if you're going to snap that joint.

Two things will help ensure this happens: a good, tight grip and isolating the bones of the lever arm.

You wouldn't punch him with a loose hand, and likewise you're not going to be able to break a joint with one. If you're using your hands to set up the joint break, **hold on as hard as you can**. Crush it in a fist. Always.

If you're grabbing his hand to break his wrist, you want to crush it in a fist to compress the multiple bones and joints of the hand into a hard knot that will behave more like a unit, rather than an energy-damping collection of flexible pivots. The implacable grip of your fist turns the rubber breaker bar into steel. Also, with a good, solid grip you'll be more likely to keep hold and break what you want.

Let's say you kicked him in the groin and then grabbed his hand to break his wrist. He does a textbook groin reaction—and then proceeds to collapse onto the ground on his side. If you had a casual grip on his wrist, you're probably going to lose his hand. Now, instead of breaking his wrist, you have to injure him some other way, like kicking him in the face. This is inefficient. If you crush his hand in your fist and he goes down, you're going to keep his hand and get what you want—a broken wrist.

‘Isolating the bones of the lever arm’ means that you want to engage the joint you are breaking while minimizing movement in nearby joints. A good example of this is crushing the hand in a fist in order to set up a wrist break. This causes the hand to behave like a solid unit, rather than many smaller flexible parts.

Imagine trying to break his wrist by grabbing several of his fingers. As you apply force, the joints of his fingers would eat up that force as each individual joint bent. In the end, the force finally reaching the wrist would be far too small to break it.

To get a broken wrist, you need to make sure that the wrist is the only joint that’s going to be allowed to move. Just the wrist—not the whole hand.

Likewise, if you want to tear out his shoulder by hyperextending it, holding his arm by the wrist to use its entire length as a lever arm, you don’t want the elbow to bend. If you let his elbow bend, your lever arm is suddenly half as long, and therefore half as efficient. Also, it uses up force to bend the elbow—force that will not be brought to bear on the shoulder joint.

In this case, you would isolate the bones of the lever arm by making sure that the elbow is locked straight and cannot bend.

Efficiency — Transfer of Forces

Having a solid lever arm isn’t the only factor in the transfer of forces.

Set the leverage close to your center of gravity.
This ensures that you’re using more bodyweight than muscular strength. With your hands out away from your body, you lose leverage and less bodyweight can be transferred. When you drop your weight with your arms out, some force is used up in bending your shoulders—the transfer of force is sloppy.

With your hands in close to your center of gravity (pelvis), you can use muscular strength to hang on tight while you drop your bodyweight into him and break the joint.

Keep your back straight.
Keeping your back straight when dropping your weight brings more of your weight into the lever. If you bend your spine, rounding your back, you are only dropping the weight of your arms and upper torso into the leverage. This is just half of you. Drop the whole hammer on him—keep your back straight and bend your knees to drop the weight.

Apply the force in a discrete direction.
This may seem like a no-brainer, but it’s a detail people often miss.

Look at it this way: if you have a class one lever like a breaker bar and you want to lever a big rock up out of the ground, the most efficient way to do this is to push straight down on your end to lever the rock straight up against gravity at the other. If you apply your force at an angle other than straight down—say at 45˚ to the vertical—some of your force is going to be wasted trying to move the lever sideways instead of up at the far end. In fact, the force could cause the lever to slip out from under the rock, wasting your time and effort.

This works the same way in joint breaking. You want to apply force in the plane of rotation of the leverage, rather than at an angle to the plane of rotation.

For example, if you want to break an elbow by locking it straight and hyperextending it, you need to apply the force into the elbow along the plane that would be described by the upper arm with the forearm bending through its normal arc.

If you apply force at an angle to this plane, the efficiency of your leverage is reduced—in fact, if the angle is far enough off, the elbow will simply bend in its normal arc instead of breaking.

Just remember: **efficient leverages apply force in the direction of rotation**.

Spiral Into the Resistance to Tear It Out

This is a corollary to the idea above: the most efficient way to power a lever is to apply the force **perpendicular to the radius** of the lever. This means that the direction you are pushing makes a 90˚ angle with the lever itself.

Of course, as you apply force, the lever rotates on the fulcrum. If you continue applying force in a straight line as the lever moves, you are no longer applying the force perpendicular to the lever's radius.

As the lever moves, you need to make sure you alter the angle along which you apply force to keep it perpendicular to the lever itself. Because the lever pivots on a fulcrum, describing an arc, the best way to do this is with a **logarithmic spiral**, 'curling' into the leverage. This way the force never lets up—it intensifies and breaks the joint.

For a concrete example, let's look at breaking a finger joint by crushing the finger in your fist and bending it backwards. As the finger joint approaches the pathological limit, the body will move to try to keep the joint from breaking, changing the angle of the lever in relation to the force. You will stay ahead of this movement, spiral into the tension, and break the finger.

In Summary

When breaking a joint you should:

- [ ] Injure him first!
- [ ] Use a Tight grip
- [ ] Isolate the lever arm
- [ ] Set the leverage close to your CoG
- [ ] Keep your back straight
- [ ] Apply force in the proper direction
- [ ] Spiral into the resistance

The Base Leverages

As we've established, all joints break the same way—by moving past the pathological limit and tearing the tissues that hold the joint together. But where is that pathological limit? And what's the best way to move a joint to get there, and go beyond?

That's where base leverages come in.

There are only six of them—and that's it. Six different directions to break every joint in the human body. Every joint-lock or joint manipulation technique that you have heard of, seen, or experienced is one of these six base leverages or a combination of two or more. In fact, every possible way to break a joint can be derived from the six base leverages.

And when you know all six, you will be able to break every joint in the human body.

How Do We Get Six Base Leverages?

The most mobile joints in the human body have three degrees of freedom—a joint can be:

- Bent
- Twisted
- Rocked to the side

If we take these three degrees of freedom, both forward and back, we get six base leverages:

1. Bending 'backwards' or 'the wrong way'
2. Bending 'forwards' or 'the right way'
3. Twisting 'away from the body'
4. Twisting 'toward the body'
5. Rocking 'away from the body'
6. Rocking 'toward the body'

To be more precise, we will use the physiological terms for these motions:

- **Base Leverage 1:** Extension (straightening)
- **Base Leverage 2:** Flexion (bending)

- **Base Leverage 3:** Supination (rotating from inside to outside)
- **Base Leverage 4:** Pronation (rotating from outside to inside)
- **Base Leverage 5:** Adduction (rocking to the outside)
- **Base Leverage 6:** Abduction (rocking to the inside)

Note that the base leverages are paired with their opposites—1 & 2, 3 & 4, 5 & 6.

All joints can be broken with all the base leverages, with only two limiting factors:

1. Some joints can be difficult to isolate for a given base leverage (like 3 & 4 in the ankle)
2. Some joints require more force than you can generate to break with a given base leverage (like 5 & 6 in the elbow)

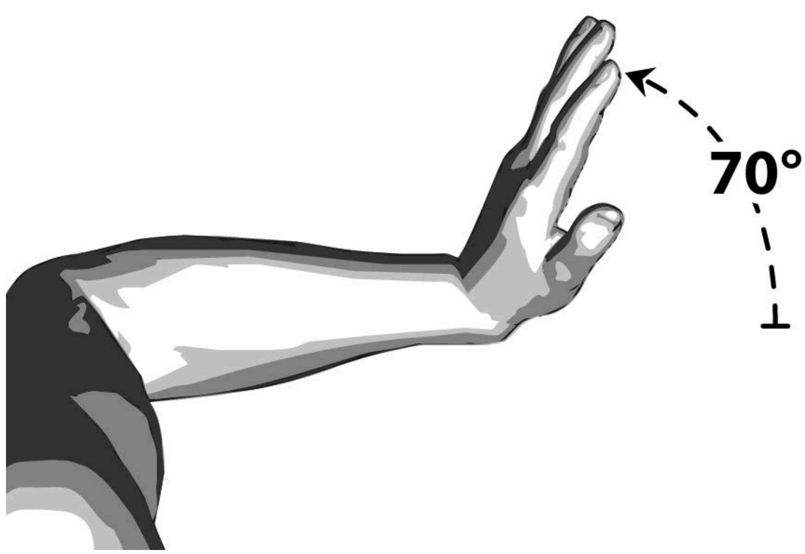
To get a base leverage 5 or 6 break in the elbow you'd have to use a technique involving your foot—on the gas pedal of a truck.

The Hand-Jive Mnemonic — Your Secret Base Leverage Decoder

Here is a simple exercise to help you remember all six base leverages by moving through them in sequence. Start by taking your left hand and hold it out in front of you, palm down, fingers pointing away from you:

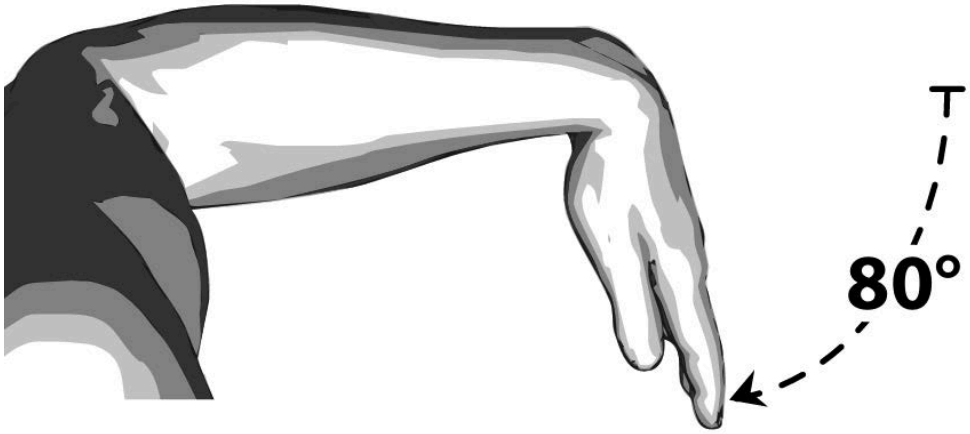
1. **Extension (Base Leverage 1):**
   Bend your wrist so your fingers point at the ceiling, palm away from you.

Fig. 3-1: Extension



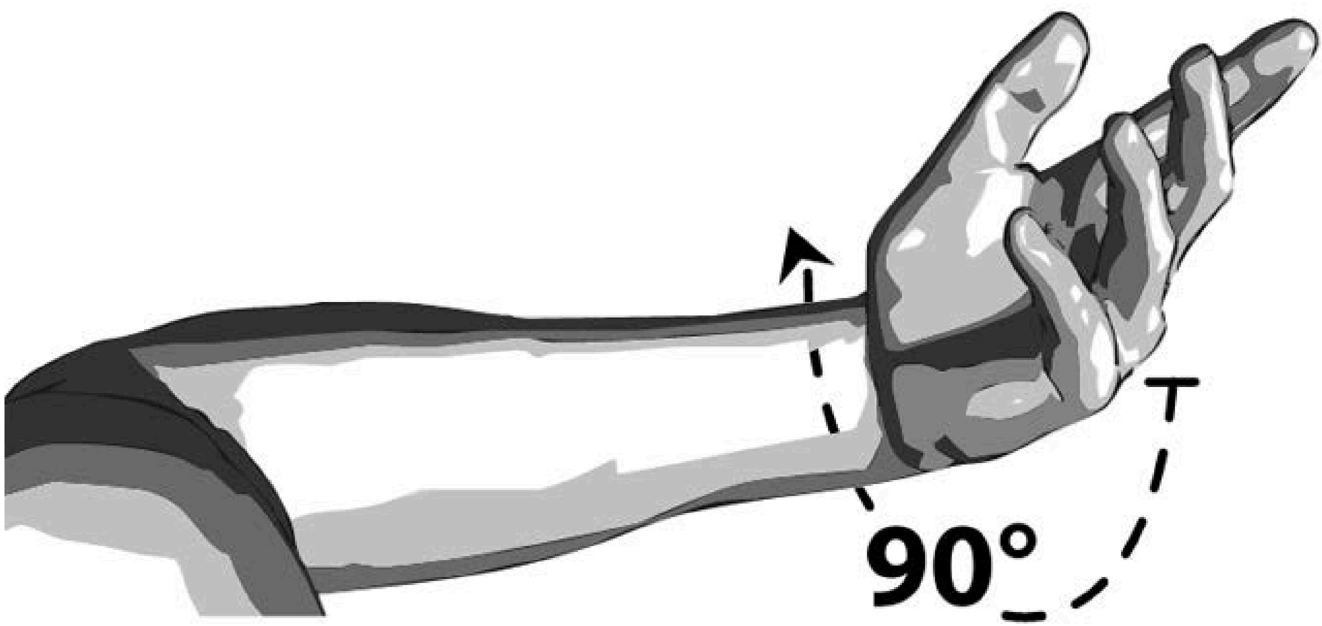
2. **Flexion (Base Leverage 2):**
 Now bend your wrist in the opposite direction, so your hand folds down, fingers pointing toward the floor, palm toward you.

Fig. 3-2: Flexion



3. **Supination (Base Leverage 3):**
 With your hand in base leverage 2, rotate your forearm so your fingers point at the ceiling, palm still toward you—keep rotating to try and point your thumb at the floor. Your elbow will want to bend slightly.
 (An easy way to remember 'supination' is that if you are turning your hand over so the palm is up and could hold soup, that is SOUPination. Silly, yes—but just try and forget it now.)

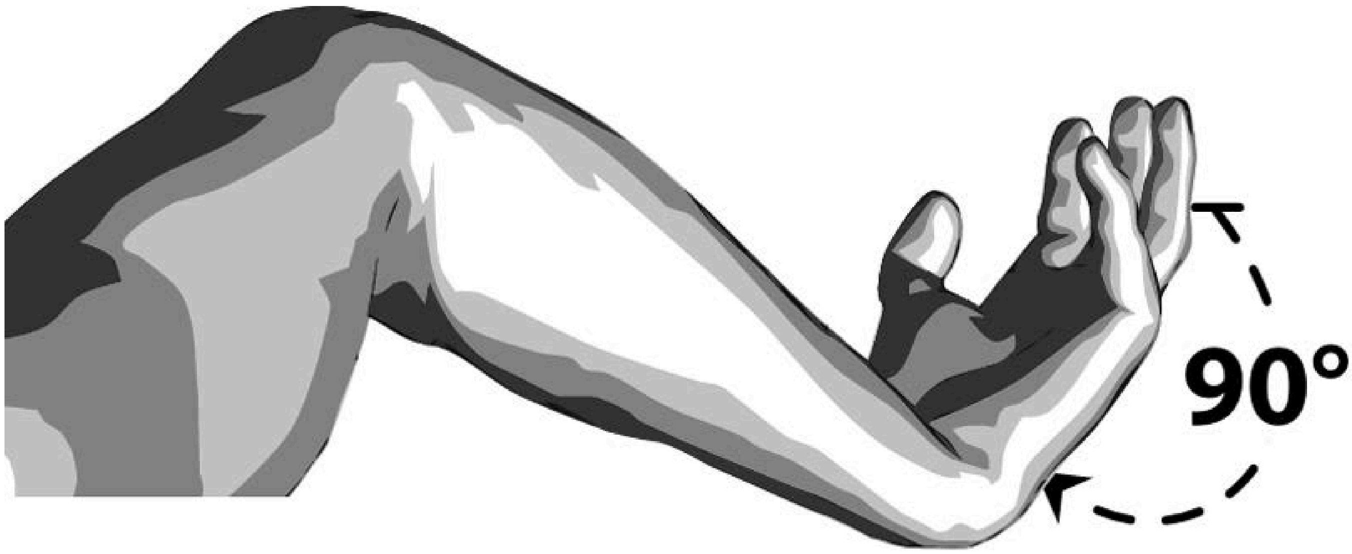
Fig. 3-3: Supination



4. **Pronation (Base Leverage 4):**
 From base leverage 3, rotate your forearm 270˚ in the opposite direction so your fingers point away from you off to your left, palm toward you. Your elbow will straighten.

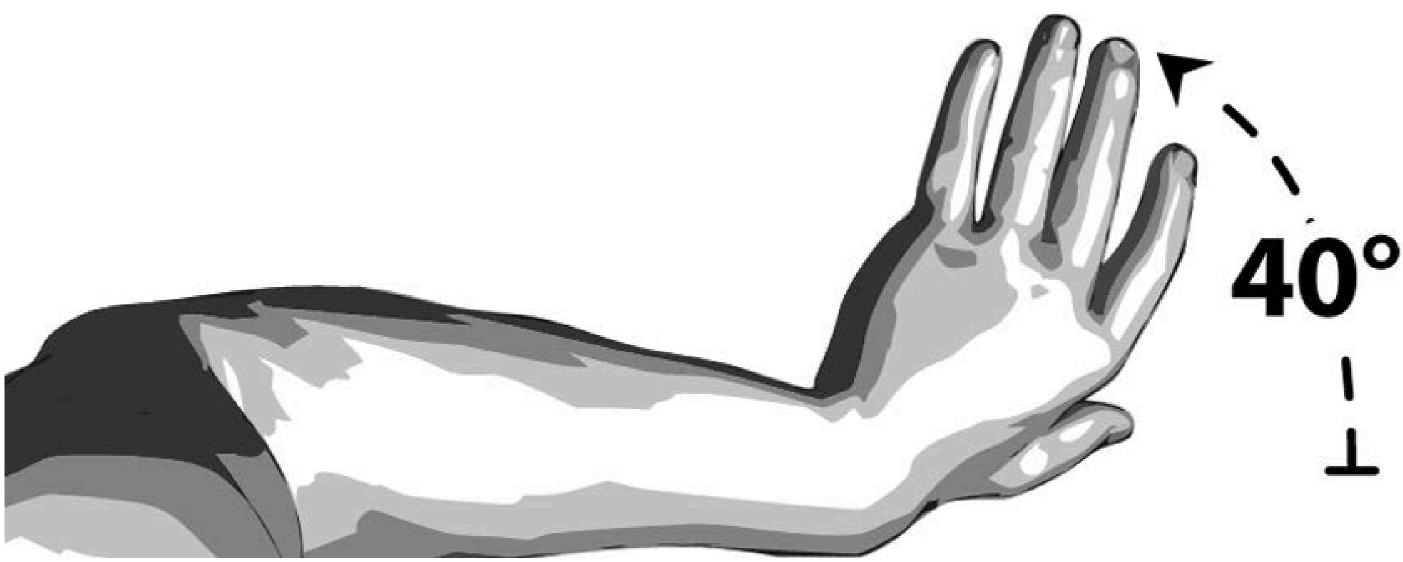
(An easy way to remember 'pronation' is that if you rotate your forearms so your palms are down, facing the floor, you got it 'covered hands-down' like a pro.)

Fig. 3-4: Pronation



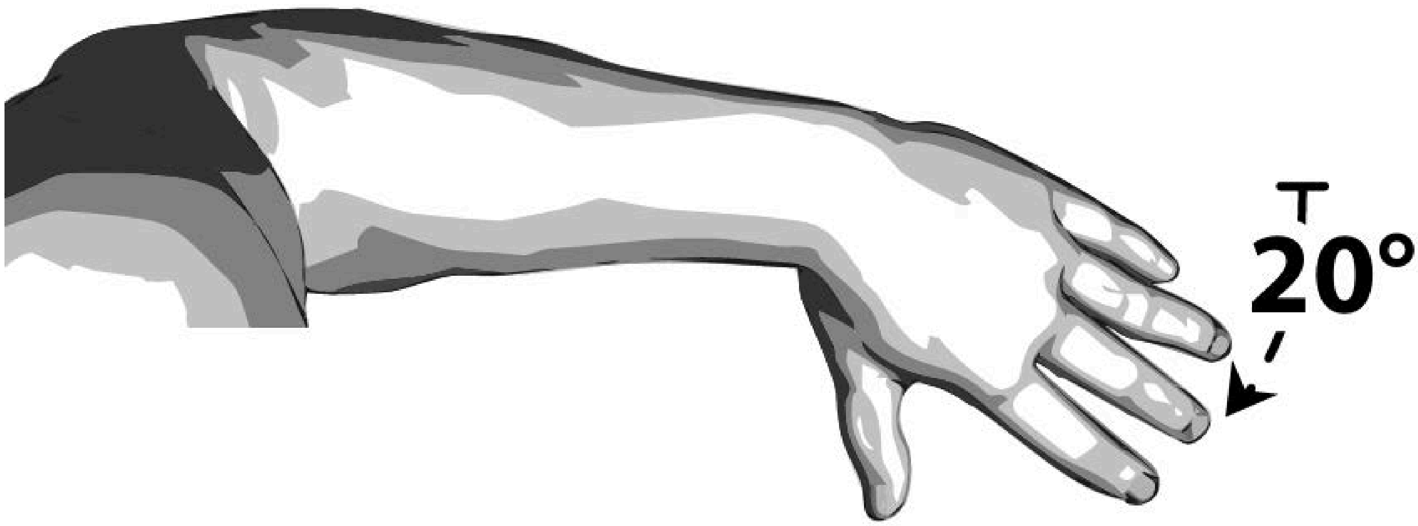
5. **Adduction (Base Leverage 5):**
   Move your hand back to the starting position (palm down, fingers pointing ahead of you); now, keeping your palm parallel to the floor, rock your hand out to your left, trying to point your fingers to your left.

Fig. 3-5: Adduction



6. **Abduction (Base Leverage 6):**
   Now rock your hand back the other way, keeping your palm down and parallel to the floor, trying to point your fingers to your right.

Fig. 3-6: Abduction



Did you feel the tightness in the wrist joint at the end of each of these motions? That's the edge of the pathological limit. If you continue the motion beyond that tightness, you will tear the joint out.

Now you know every possible way a joint can be broken.

Do I Have to Remember the Funny Names?

No. The joint will break whether you know it's a base leverage 1 hyperextension or just "bend it backwards 'til it snaps." The "funny names" allow us to refer to complex motions using simple terms. So instead of a tedious paragraph explaining a specific hyperextension, we can just say "base leverage 1."

A Quick Note on Taxonomy or "Wait a minute—that's not adduction!"

We are fully aware that there are additional terms for joint movement—like inversion and eversion—and that movement terminology can change as the relationship between the centerline of the body and the body part in motion changes. But for anyone not steeped in anatomy and physiology lore, this quickly becomes a sickening ride on the Confusitron™.

To keep the confusion to a minimum, we had to develop a taxonomy for joint breaking. In doing this, we had to strike a balance between two ends of the understanding spectrum: accepted A&P terminology and the layman. If we deviated too far from A&P terminology, joint breaking would become a mishmash of dada jargon, like "Confusitron." If we stuck to it strictly, no one but orthopedic surgeons would know what the hell we were talking about.

So if you think we got it wrong, keep these things in mind:

1. We are only interested in the relationship between the bones on either side of the affected joint

2. For simplicity's sake, we chose to keep all motion descriptions related to the wrist and to make movement in the wrist-elbow-shoulder homologous to the ankle-knee-hip

At this point, we hope you think we are really, really smart.

Base Leverage 1

Fig. 4-1: Traumatic extension: anterior

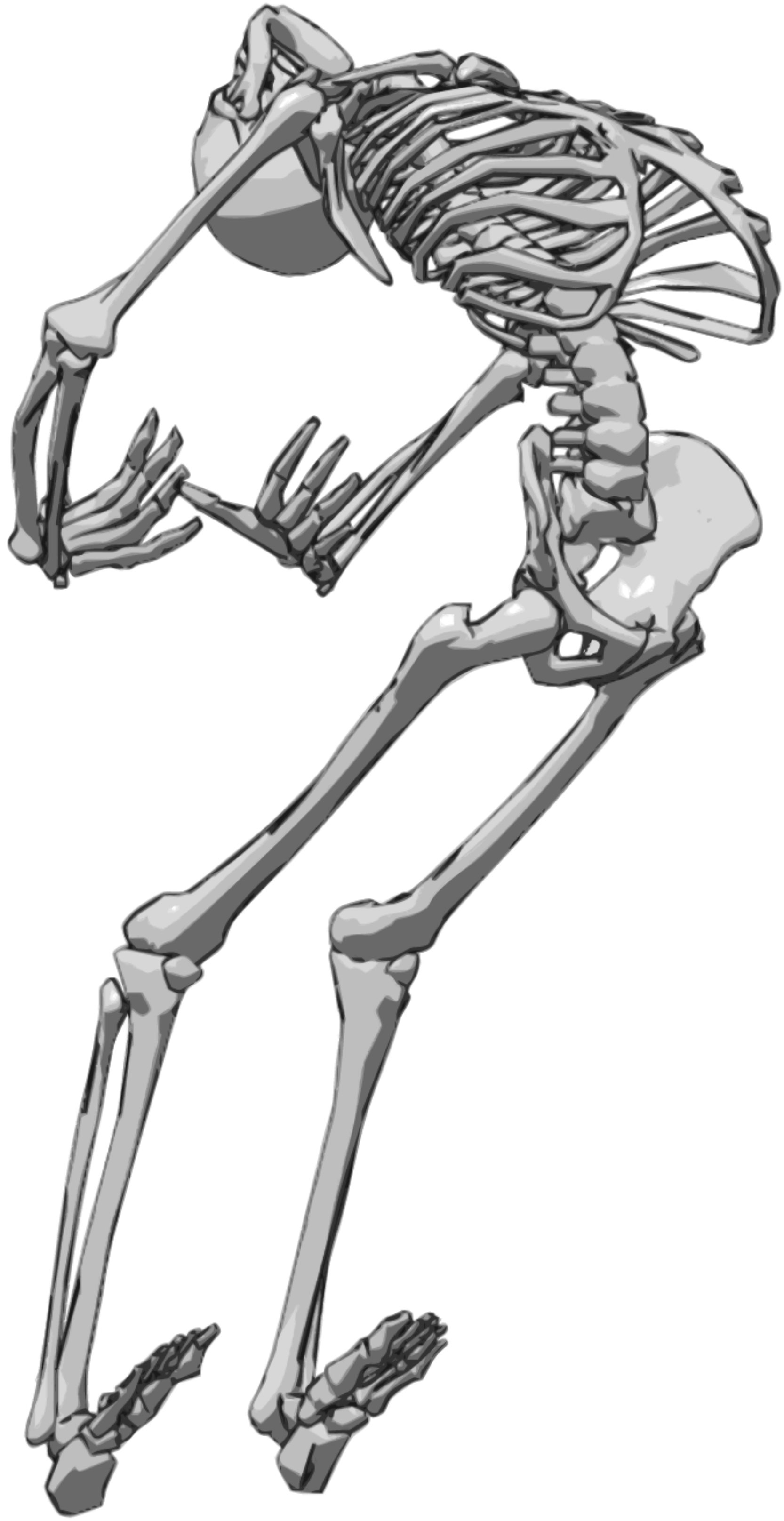
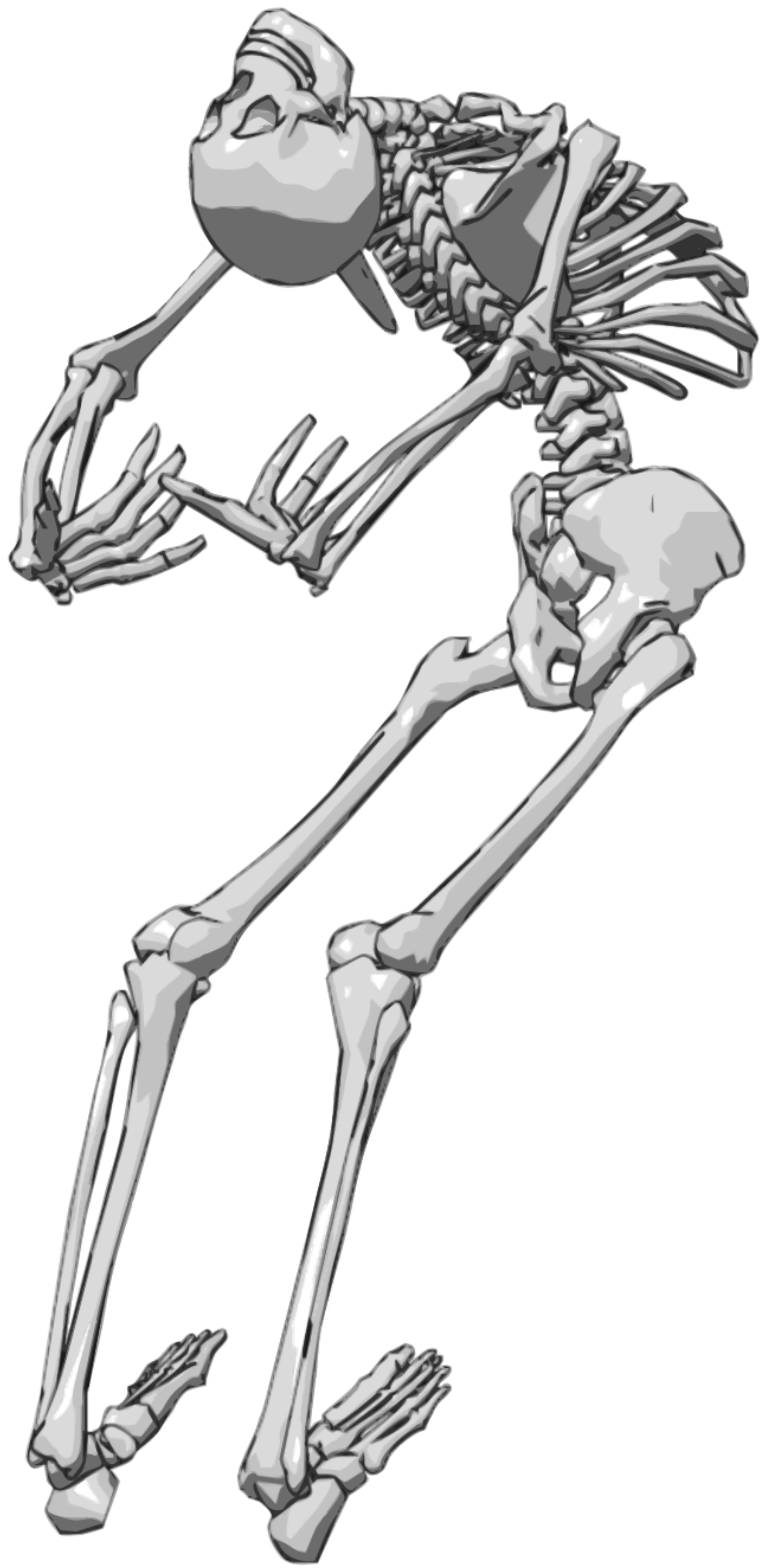


Fig. 4-2: Traumatic extension: posterior



Extension Straightening

This is the state of most joints in the human body when standing erect—most joints are naturally ready to break through hyperextension.

The following is a list of joints you can break with base leverage 1 and the range of motion, in degrees, the joint can travel in that direction before reaching the pathological limit:

- **Ankle:** 45° (dorsiflexion)
- **Knee:** 15°
- **Hip:** 30°
- **Phalanges:** 50°
- **Wrist:** 70° (dorsiflexion)
- **Elbow:** 15°
- **Shoulder:** 45°
- **Spine:** 30°
- **Neck:** 55°

So to break the knee with base leverage 1, for example, you need to make it bend backwards farther than 15°. A typical stomp to the front of the knee will make it move through a 90° arc in the "wrong direction"—making him sit down like a flamingo. This is more than enough to tear it out.

A Quick Discussion of Levers and How They Apply to Base Leverages

Now that you understand both levers (mechanical advantage) and base leverages (a specific direction of motion in a joint), we can talk about an interesting interaction between them. To wit:

A **base leverage** can be applied to a joint using **multiple classes of levers**.
You can apply a base leverage to a joint using different classes of levers; the base leverage, and its effect, remain the same.

- **Example 1:**
  Stomping the knee to break it from the front, a base leverage 1 break, is a **third class lever**.

Breaking a knee by hyperextension is analogous to breaking a stick on the curb. You lean the stick with one end on the curb, the other on the street, and stomp in the middle to shatter the stick. If he's standing and you're stomping to the front of his knee, the inertia of his body mass acts as the curb, while the friction of his foot against the ground acts as the street.

This is a third class lever with an insufficient lever arm.
The fulcrum point is in the ankle; you’re applying effort to generate forces greater than the lever can bear. In this case, the lever (his entire leg) has a weak point in the center (his knee joint).

Yes, the fulcrum point for this joint break is not inside the broken joint itself. The fulcrum point is inside the ankle. Think of it this way—if you applied the force slowly to the front of the knee, so as not to suddenly load forces greater than the knee joint could handle, the knee joint would lock straight and the leg would behave like a third class lever, pivoting on the fulcrum of his ankle and doing work on the resistance, pushing his body weight backwards until he fell down.

Example 2:

Breaking the knee by bending it backwards around your shin, another base leverage 1 break, is a **first class lever**.

In this case, the fulcrum point (your shin) is against his knee joint; the force is you pulling on the back of his ankle (to bend his knee backwards around your shin) while the resistance is the inertia of his mass and his friction against the ground.

In both cases, the results are the same—the knee breaks through hyperextension.

Base Leverage 2

Fig. 5-1: Traumatic flexion: anterior

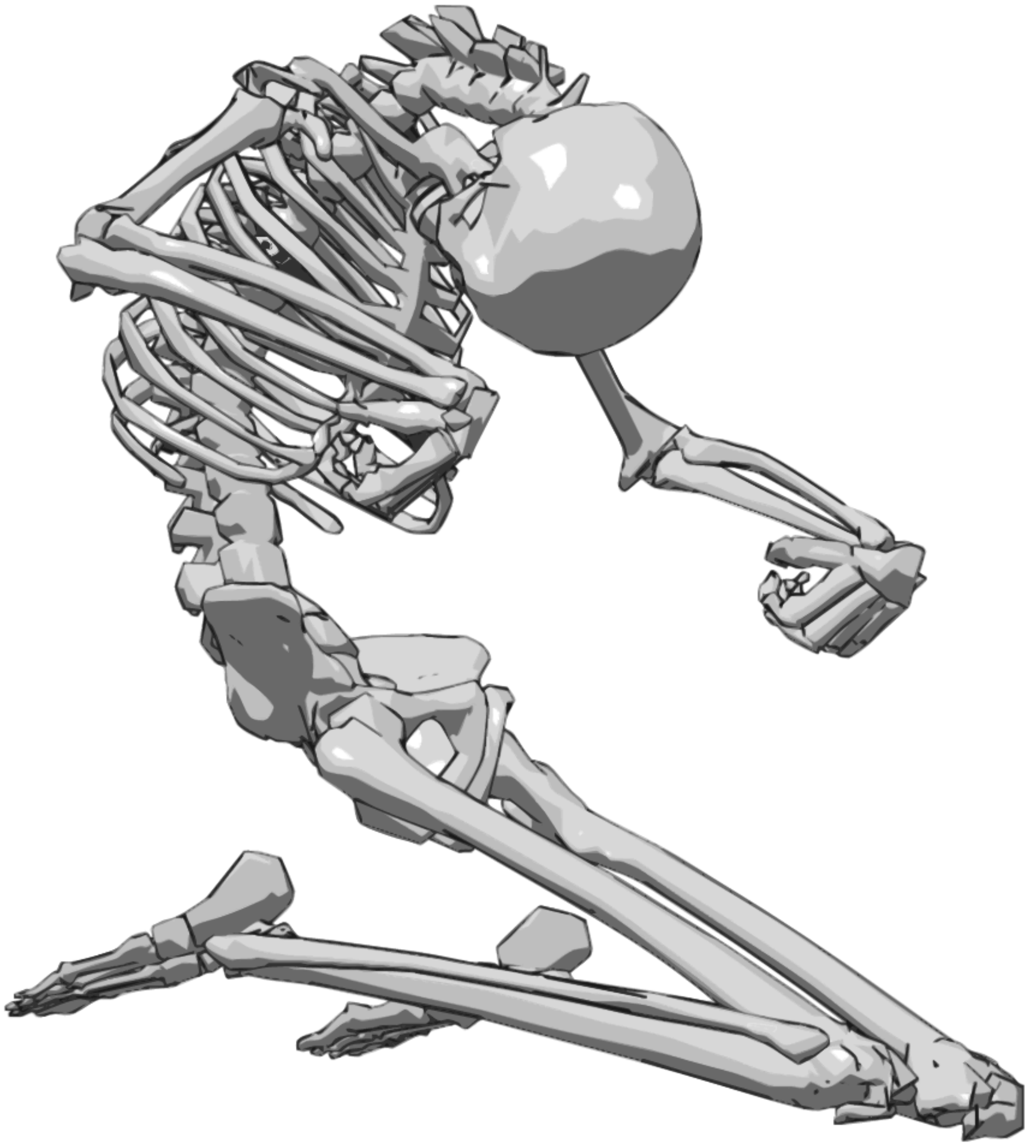
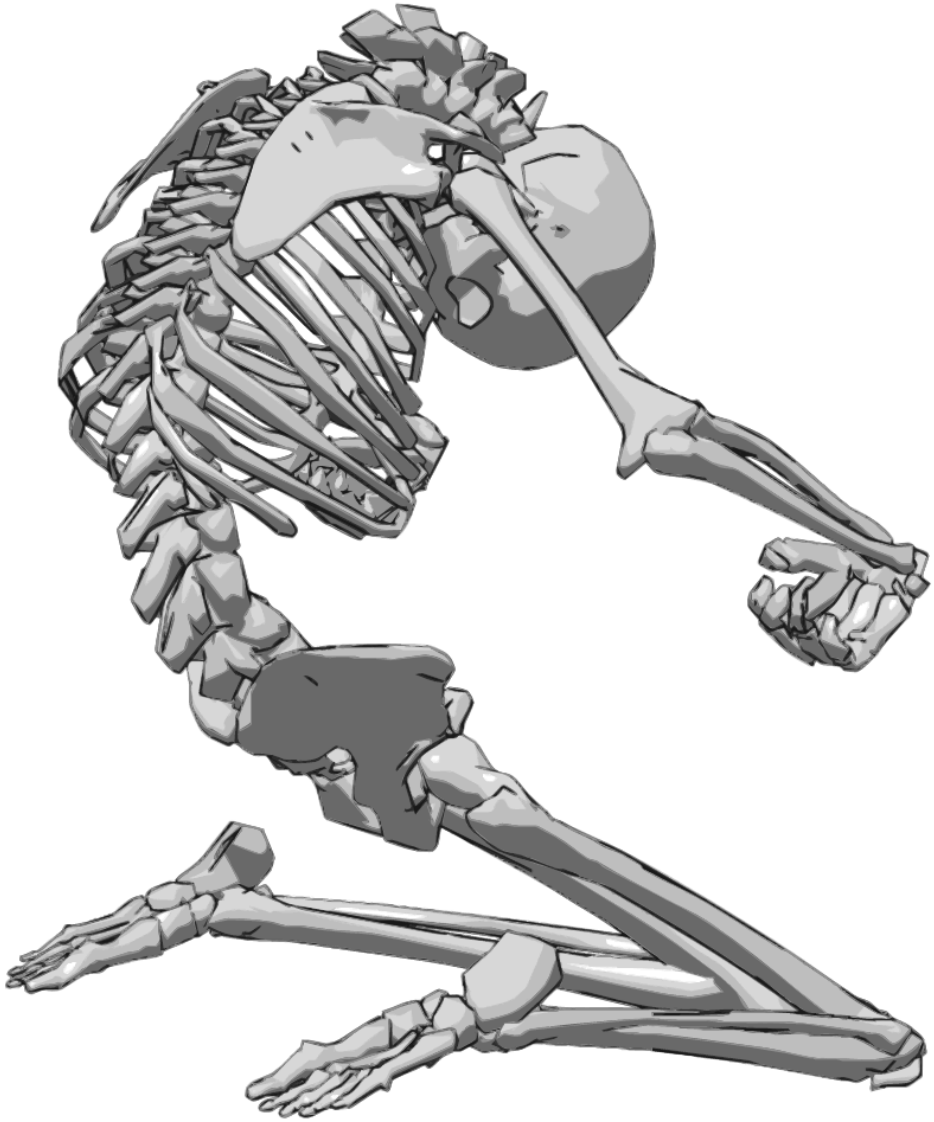


Fig. 5-2: Traumatic flexion: posterior



Flexion
"Bending"

This is bending the joint and then compressing it beyond its range of motion. Note that fewer joints are susceptible to breaking in this direction—typically because the body "runs into itself" and ceases further motion in the joint.

The following is a list of joints you can break with base leverage 2 and the range of motion (in degrees) they can travel in that direction before reaching the pathological limit:

- **Ankle:** 20° (plantar flexion)
- **Knee:** 130°
- **Phalanges:** 30–110°

- **Wrist:** 80–90°
- **Spine:** 75°
- **Neck:** 70–90°

To break a knee with base leverage 2, for example, you need to bend his knee beyond a 130° arc—not easy to do.

This becomes simple when you add a big, fat fulcrum point into the crook of his knee for the knee joint to bend around—like your fist, a stick, or his own shin (as in the classic figure-four leg lock). Now the knee will separate and tear out easily.

Base Leverage 3

Fig. 6-1: Traumatic supination: anterior

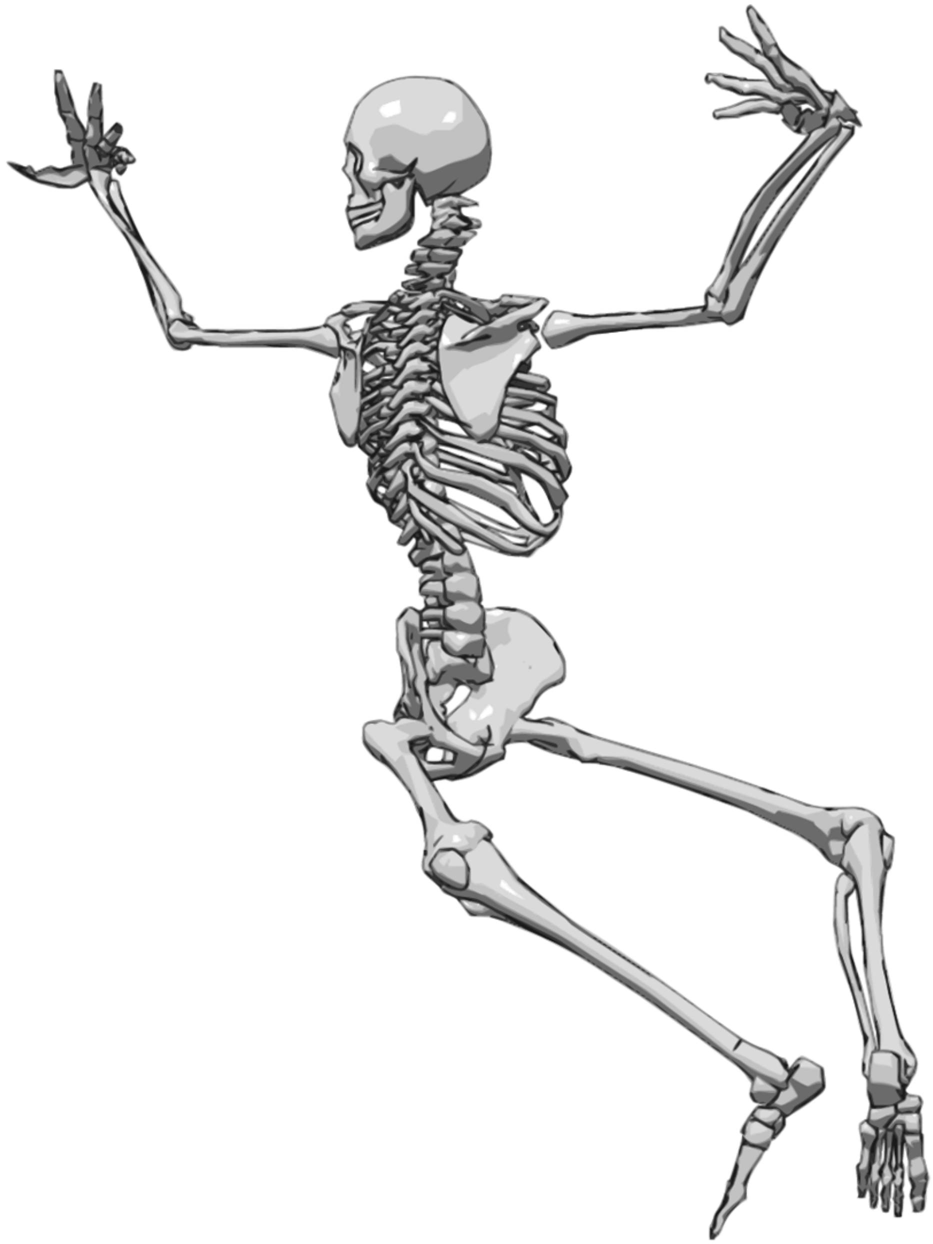
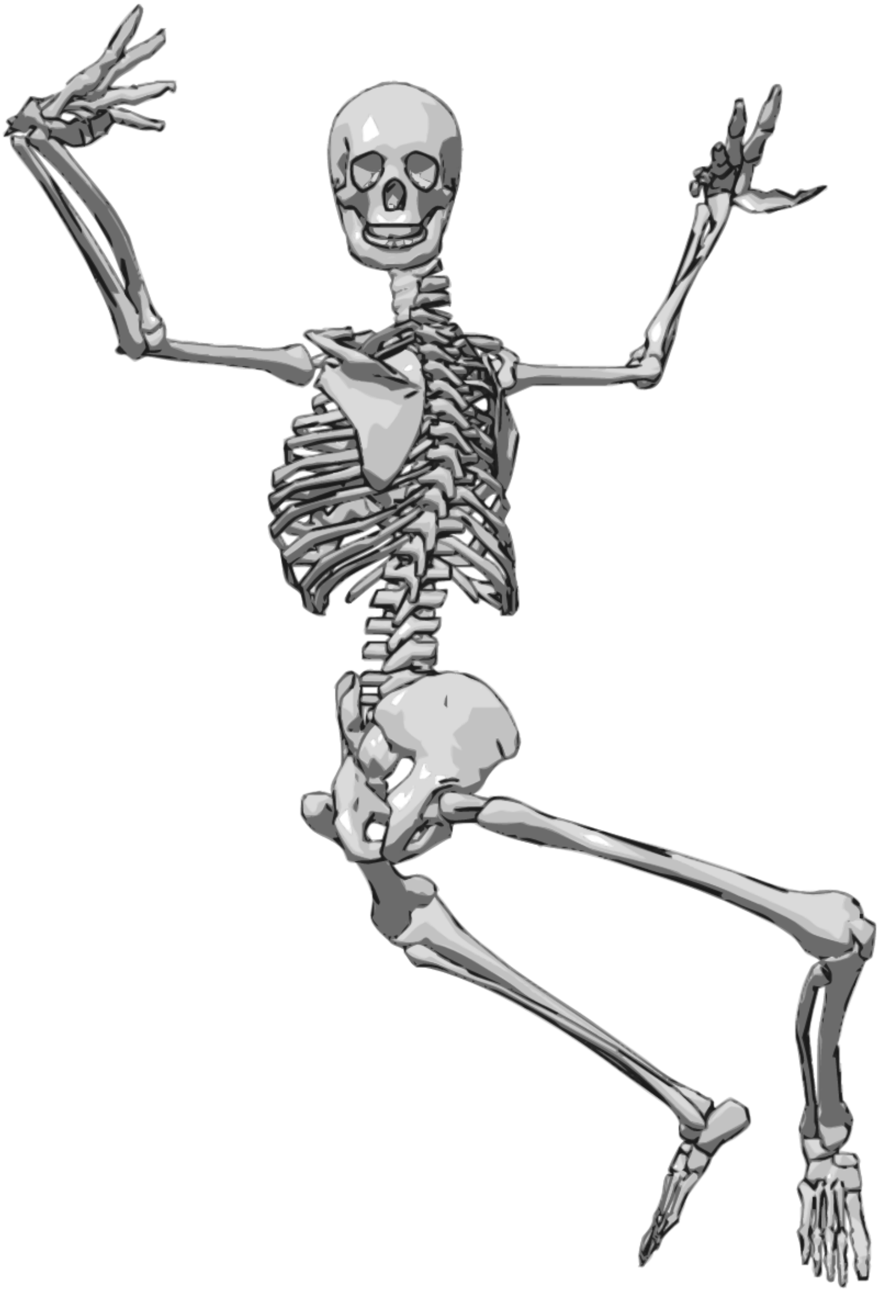


Fig. 6-2: Traumatic supination: posterior



Supination
"Rotating from inside to outside"

This is getting rotation inside of the joint by cranking on a lever (typically at 90° to the axis of rotation) outward, away from the centerline of the body.

The following is a list of joints you can break with base leverage 3 and the range of motion they can travel in that direction before reaching the pathological limit:

- **Ankle:** 0° (ankle isolation difficult)
- **Knee:** 40°

- **Hip:** 45°
- **Phalanges:** 25°
- **Wrist:** 90° (rotates at elbow, injury at wrist)
- **Shoulder:** 70°
- **Spine:** 70°

To tear out the knee using base leverage 3 with him laying on his back, for example, you could grab his foot and snap-rotate it outward—any rotation past 40° will tear the knee.

Note that the ankle is notoriously difficult to isolate in base leverage 3. Forces put into the ankle will translate upward into the knee and hip—the system will then blow at its weakest point. In this rotation, it will always be the knee, rather than the ankle (or hip).

Base Leverage 4

Fig. 7-1: Traumatic pronation: anterior

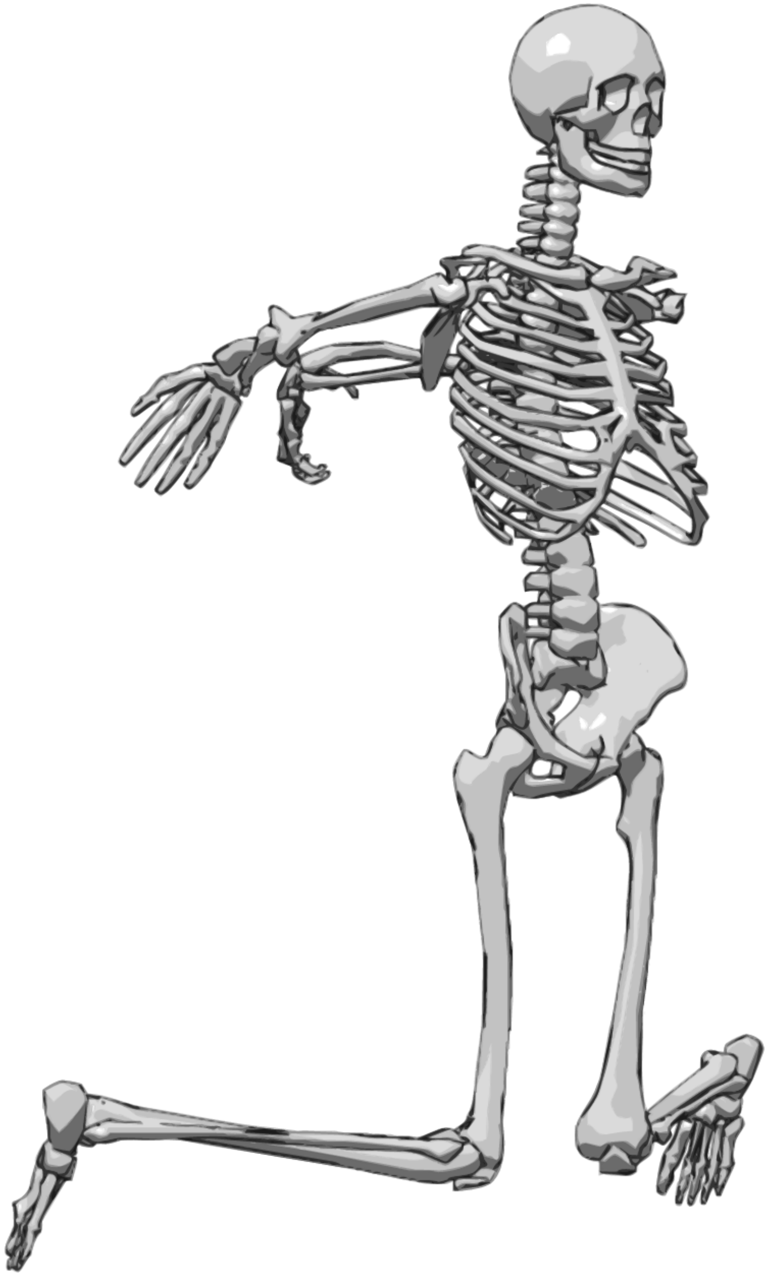
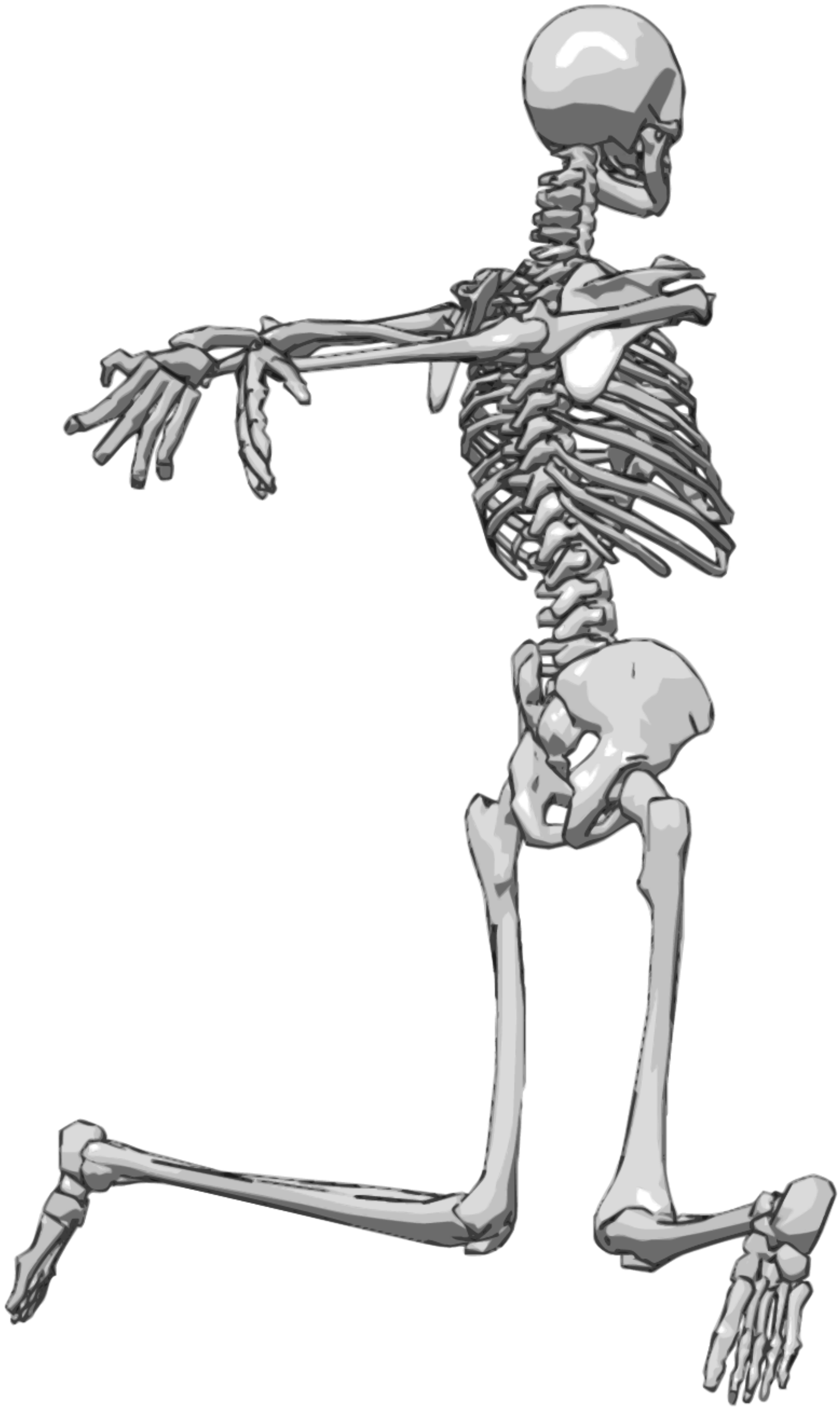


Fig. 7-2: Traumatic pronation: posterior



Pronation
"Rotating from outside to inside"

This is getting rotation inside of the joint by cranking on a lever (typically at 90° to the axis of rotation) inward toward the centerline of the body.

The following is a list of joints you can break with base leverage 4 and the range of motion they can travel in that direction before reaching the pathological limit:

- **Ankle:** 0° (ankle isolation difficult)
- **Knee:** 10°
- **Hip:** 40°
- **Phalanges:** 25°
- **Wrist:** 90° (rotates at elbow, injury at wrist)
- **Shoulder:** 110° (vertical extension: 60°)

To tear out the knee using base leverage 4 with him laying on his back, for example, you could grab his foot and snap-rotate it inward—any rotation past 10° will tear the knee.

Note that, as in base leverage 3 above, the ankle is notoriously difficult to isolate in base leverage 4. Forces put into the ankle will translate upward into the knee and hip—the system will then blow at its weakest point. In this rotation, it will also be the knee, rather than the ankle (or hip).

Base Leverage 5

Fig. 8-1: Traumatic adduction: anterior

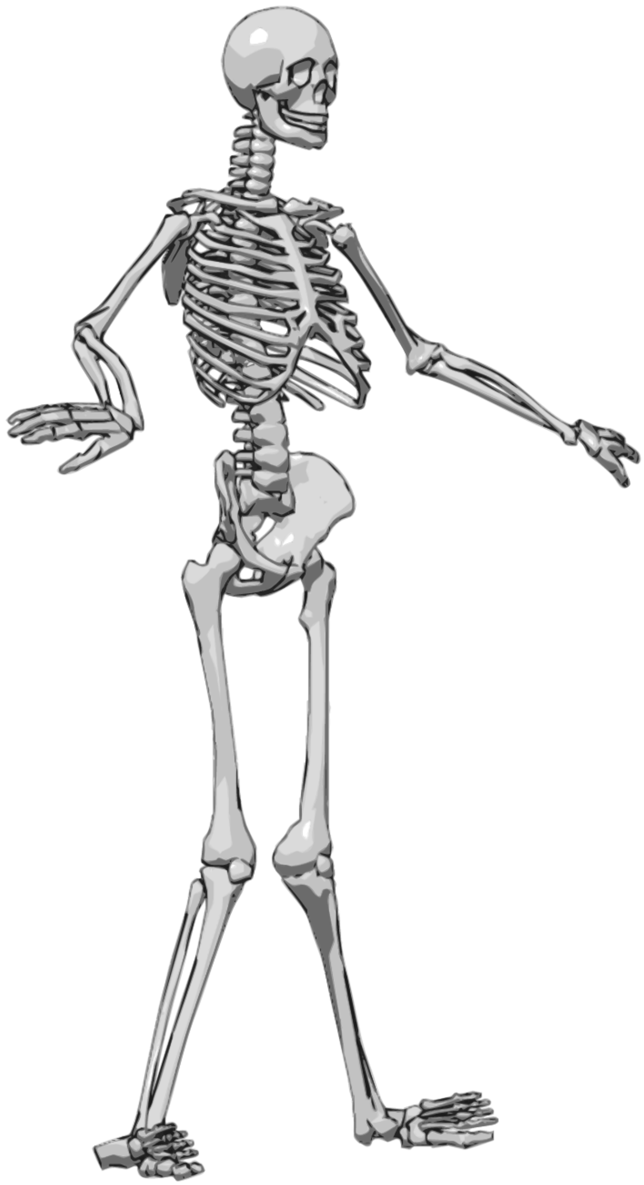
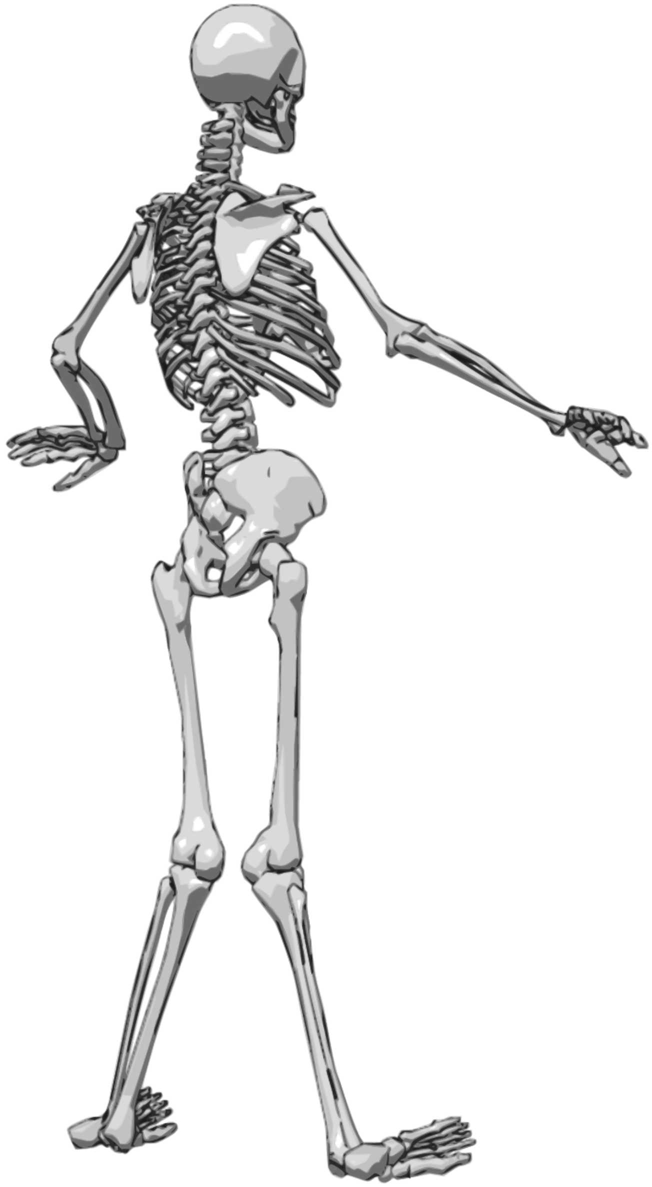


Fig. 8-2: Traumatic adduction: posterior



Adduction "Rocking to the outside"

This is rocking or "bending sideways" toward the pinky side of your hand (in the wrist).

The following is a list of joints you can break with base leverage 5 and the range of motion they can travel in that direction before reaching the pathological limit:

- **Ankle:** 30° (pronation/inversion)
- **Knee:** 0°
- **Phalanges:** 30°

- **Wrist:** 30–50° (ulnar deviation)

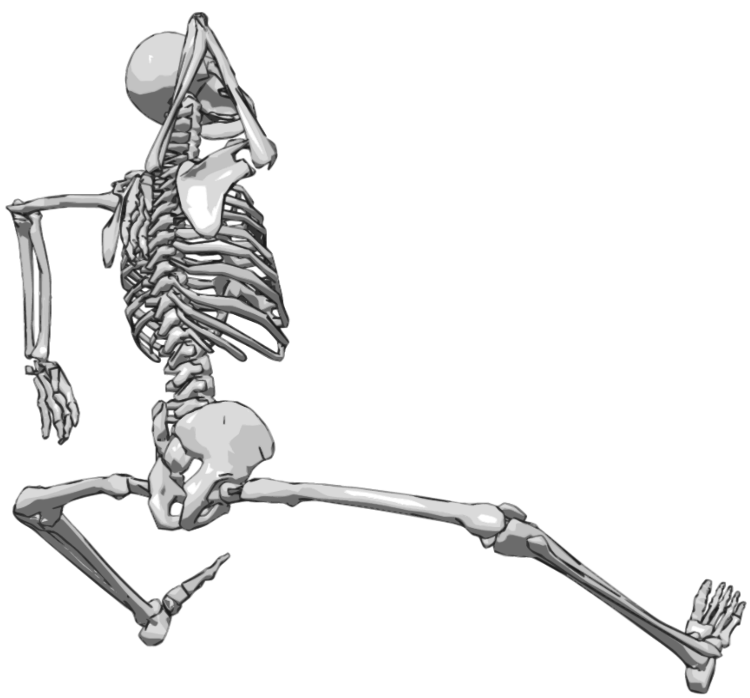
A simple way to break a knee using base leverage 5 would be to stomp on the knee from the outside, breaking it sideways into his center. This is the classic chill-your-blood football injury.

Note that the knee has **no range of motion** in this direction—it doesn't bend, it just breaks.

Base Leverage 6

Fig. 9-1: Traumatic abduction: anterior

Fig. 9-2: Traumatic abduction: posterior



Abduction "Rocking to the inside"

This is rocking or "bending sideways" toward the thumb side of your hand (in the wrist).

The following is a list of joints you can break with base leverage 6 and the range of motion they can travel in that direction before reaching the pathological limit:

- **Ankle:** 20° (supination/eversion)
- **Knee:** 0°
- **Hip:** 45–50°
- **Phalanges:** 30°
- **Wrist:** 20° (radial deviation)
- **Shoulder:** 180°
- **Spine:** 35°

To break a knee using base leverage 6, you would stomp on the knee from the inside, breaking it sideways to the outside.

Once again, the knee has **no range of motion** in this direction—it doesn't bend this way, it just breaks.

Take-Away

If you're reading this, you've either skipped ahead because you want to see how it all turns out (shame on you!) or you're a thorough and studious completist who wants every scrap of knowledge you can get to sharpen your edge.

And you are now a very sharp weapon indeed.

You now know that there aren't thousands of ways to break joints. There is only **one way**—move the joint past its **pathological limit**. And there are only **six ways** to get it there—the **three degrees of freedom** (bending, twisting, rocking), both forward and back. Just six base leverages to break every joint in the human body.

And you know them all.

In future products, we will expand on this base knowledge by showing you how to combine multiple base leverages into bone-shattering **compound leverages**; we will also whip the "secret shroud" off of the world of throwing and then take it to the next level with **crippling leverage throws**—joint breaking and throwing simultaneously.

Until then, here are a few tidbits of information to make you even sharper:

- It doesn't matter **what body part** applies the force—if the leverage is set properly, the joint will break. You can use your hands, your feet, your hip or shoulder; a briefcase, a car door, the curb.

- **Break it as soon as you grab it.** Don't monkey around; the longer it takes you to get it done, the longer he has to finish his initial spinal reflex and kill you. Break it now. If for some reason you can't get it done, let it go and strike a target. Injure him to keep him busy and then break it. Just because you want to break a joint doesn't mean that's all you can do. You always have all your options.

- **Keep the leverage in close** to your body—at your shoulder, hip, or center of gravity. Close to your torso is where your body's natural mechanical advantage comes into play. Think about it: you wouldn't carry two phone books at arm's length—you'd hug them close to your chest. That's where all your mechanical advantage is.

- In general, when you hold with one hand, **reinforce the hold with your other hand** as soon as possible. This allows you to better clamp down on your end of the lever arm so it doesn't slip or bend as you load the forces; it also gets more of your body weight in there more efficiently.

And finally, for tactical considerations:

- **Use the broken joint to put him where you want him**—he can't come up above the level of the injury without causing another spinal reflex in response to movement inside the broken joint.

- A **broken joint is a joystick for the soul**. Drive him around as you will.

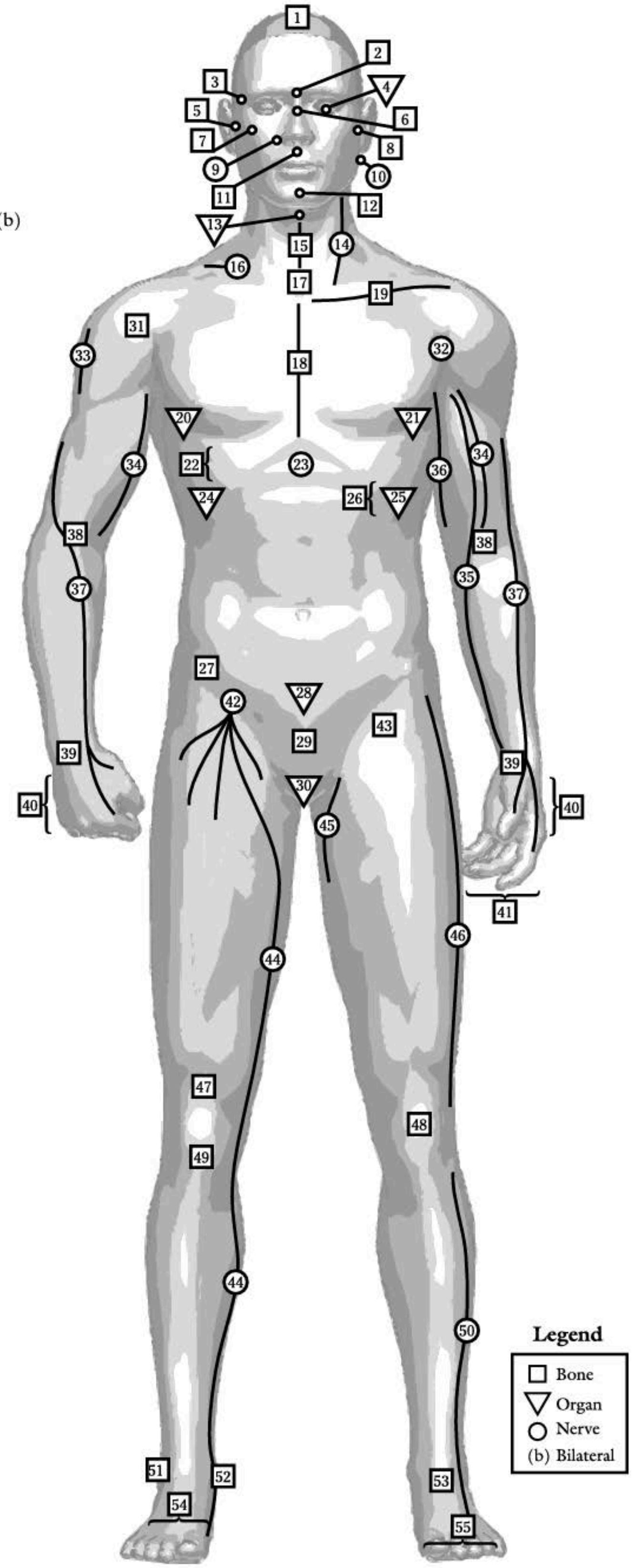
Target List: Anterior

Head/Neck
1. Coronal Suture
2. Frontal Sinuses
3. Temple (b)
4. Eye (b)
5. Inner Ear (b)
6. Nasal Bone
7. Zygoma (b)
8. Temporomandibular Joint (TMJ) (b)
9. Trigeminal N. (b)
10. Pre-Mastoid (b)
    a. Hypoglossal N.
    b. Facial N.
11. Maxilla
12. Mandible
13. Tongue
14. Lateral Neck (b)
    a. Carotid A.
    b. Vagus N.
    c. Jugular V.
    d. Phrenic N.
15. Trachea
16. Suprascapular N. (b)
17. Suprasternal Notch

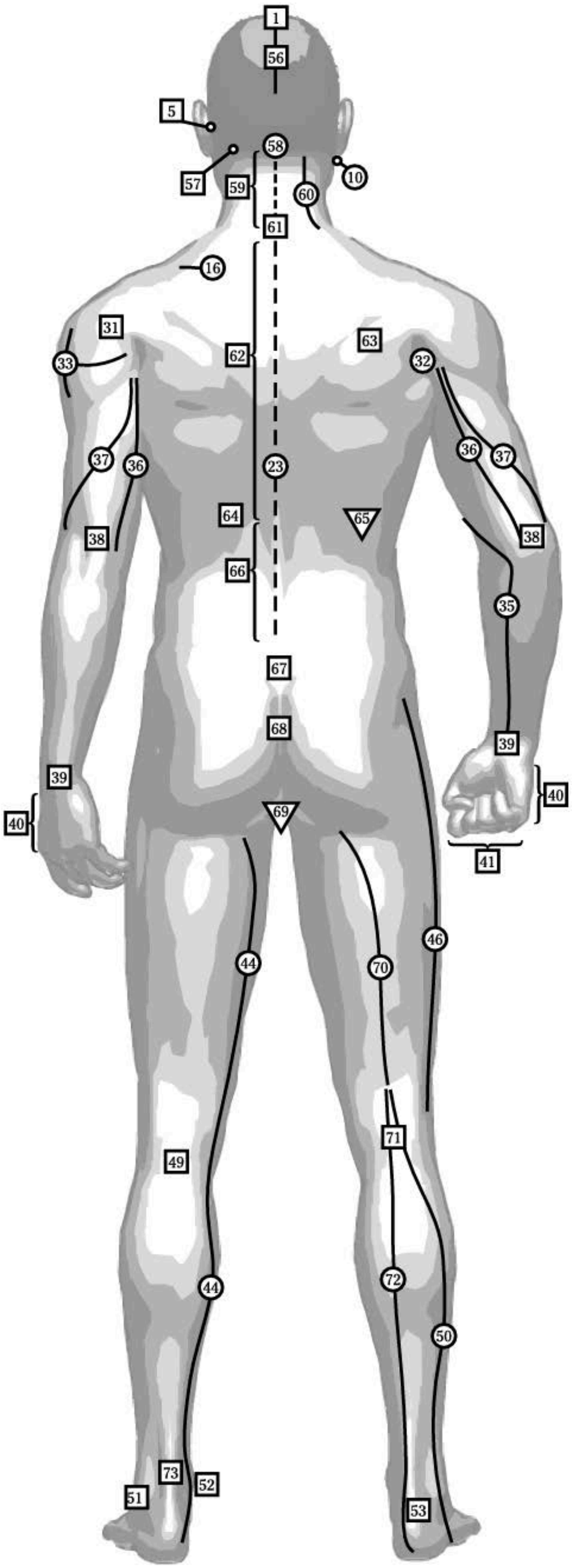
Torso
18. Sternum
19. Clavicle (b)
20. Lung
21. Heart
22. True Ribs (b)
23. Solar Plexus
24. Liver
25. Spleen
26. False Ribs (b)
27. Illiac Crest (b)
28. Bladder
29. Symphysis Pubis
30. Groin

Upper Limb
31. Glenohumeral (Shoulder) Joint
32. Brachial Plexus
33. Axillary N.
34. Musculocutaneous N.
35. Median N.
36. Ulnar N.
37. Radial N.
38. Humeroulnar (Elbow) Joint
39. Radiocarpal (Wrist) Joint
40. Metacarpals
41. Phalanges

Lower Limb
42. Femoral N.
43. Hip Joint
44. Saphenous N.
45. Obturator N.
46. Lateral Femoral Cutaneous N.
47. Tendons of Quadriceps Femoris
48. Patella
49. Knee Joint
50. Peroneal (Fibular) N.
51. Lateral Malleolus
52. Medial Malleolus
53. Ankle Joint
54. Metatarsals
55. Phalanges



Target List: Posterior



Head/Neck
1. Coronal Suture
5. Inner Ear (b)
10. Pre-Mastoid (b)
    a. Hypoglossal N.
    b. Facial N.
56. Sagittal Suture
57. Mastoid process (b)
58. Medulla Oblongata
59. Cervical Vertebrae (C1-C7)
60. Accessory N. (b)
61. Vertebra Prominens (C7)

Torso
16. Suprascapular N. (b)
23. Solar Plexus
62. Thoracic Vertebrae (T1-T12)
63. Scapula (b)
64. Floating Ribs (b)
65. Kidney (b)
66. Lumbar Spine (L1-L5)
67. Sacrum
68. Coccyx
69. Perineum

Upper Limb
31. Glenohumeral (Shoulder) Joint
32. Brachial Plexus
33. Axillary N.
35. Median N.
36. Ulnar N.
37. Radial N.
38. Humeroulnar (Elbow) Joint
39. Radiocarpal (Wrist) Joint
40. Metacarpals
41. Phalanges

Lower Limb
44. Saphenous N.
46. Lateral Femoral Cutaneous N.
49. Knee Joint
50. Peroneal (Fibular) N.
51. Lateral Malleolus
52. Medial Malleolus
53. Ankle Joint
70. Sciatic N.
71. Popliteal Fossa
72. Tibial N.
73. Calcaneal (Achilles) Tendon

Legend

□ Bone
▽ Organ
○ Nerve
(b) Bilateral

To Learn More About Target-Focus Training

To learn more about how and why Target-Focus Training enables YOU to defeat anyone threatening you in an unavoidable violent confrontation, please see our website at Prot3ct.com or email us at: support@prot3ct.com.

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