



**Squier Ball
Springboard Diving
Camp**

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Diving Entries, Saves, Injuries, Tops; July 2008 by R. Squier Ball

1) ENTRIES DESCRIPTION

a)Shoulders Missing the grab on a head first entry from a forward or inward spinning somersault: (not understanding why this is important).

I was perhaps slightly "out of shape" in 1996, when I executed a standing forward 2 1/2 somersault from 3 meter. I missed my grab, and the different torques of the entry tore my left shoulder out of its socket.

BE PREPARED: A piece of surgical tubing, about 6 feet long, tied at both ends into a loop: practice at least twice a week for about 3 or more weeks before executing any dives into the water that could potentially put too much strain on a shoulder, if you miss your grab.

THE EXERCISE: Four basic movements for each arm:

Slip one knot over a door handle. Grab the other knot and stand back until the tubing is straight, no slack.

1) Bend the upper trunk over to about 90% (parallel with the floor) and pull the tubing through from in front to back to where you would finish a good swimming stroke. That means turn your palm inward at the start; pull through under your chest and belly, and finish out by turning the palm outwards, as your hand reaches your waist, and pushing the whole stroke out behind your hips. 10 reps Do this for each arm.

2) Stand sideways to where the tubing is attached. Pull the tubing through behind your back, until you've stretched it out as far as you can go comfortably. 10 reps. Do this for each arm.

3) Put your foot over one end of the tubing and, with one hand and arm, lift the other end to over your head: to the side 10 times and straight ahead 10 times.

TOTAL: four exercises for each arm and shoulder: 8 all together.

This physical preparation strengthens your shoulder for all entries, forward or backward.

b) ENTERING OVER

1. Scooping while going over on FORWARD and INWARD head first. **Never scoop on these.** The small of your back will be overstretched, and you can be hurt bad. **Instead** one must

learn to recognize one is going over; Having entered the water head first to slightly beyond the hips, execute a pike motion with head toward your knees. If you do it too soon, you produce a bomb. A "watermelon" Great way to soak everyone on pool side, but not for making a dive sneak in the water with minimum splash. Wait longer: Better to execute the somersault underneath the water **too late**, than too soon. Even if too late, the result will not only save your back upon entry, but it will clean up the entry, if ever so little.

You must have a minimum of 11' 6" to do this, but such a shallow depth can be hurtful, if you time it wrong and pike with your head in too late. You could end up smashing your back against the bottom. It will usually still be better to make this slight mistake than to scoop, OR to smash your face or head square on the bottom (bloody nose, etc).

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ENTERING OVER continued

2. Bringing the head in while going over on backs or reverses simply makes the landing more painful. WOP! Bringing the head in at this point will bring your legs even more to a flat landing. What to do? When in doubt, add a scoop save, even if it is "too late". Even if too late, the action will save your skin and even reduce the splash. **How to execute this kind of scoop:** After entering the water, lift your head and, a couple of tenths of a second later, point your toes to the max. You can also bend the knees on purpose, but the action of lifting your head and pointing your toes will weaken your knees, so that your legs will bend the way they should go, naturally. A bit late is always better than too soon. That's what I call "the margin for error." So even if you think your entry was vertical, polish off the moment when your feet disappear by executing this scoop.

ALSO: Swim the entry at the end. Bring your arms down forcefully to your sides. Too early, at the moment when your shoulders are still even or above water, will be obvious to a judge or other observer. If you are in the process of landing pretty flat, it may help save you from smacking too hard. I personally have never tried it, because I learned this action too late in my "career" and was never so LONG that this action might have helped. This detail is open to discussion, although it is a little like discussing why did the horse die?

3. **FEET FIRST:** You can just about knock yourself out on the landing, if you fight going over by bringing your feet and legs forward. You can thus accomplish another big WOP! **on your chest. Instead,** let your feet go into the water lined up with the rest of your body. Wait until your hips have penetrated, then point your toes and even bend your knees just a tad. This action will save you for another attempt. because you will scoop past the entry. Again, this is the "margin for error" that you want to play. It is always better to live to try another dive than to be virtually unconscious or in great pain from landing flat. The areas hit, if you don't, will be either the groin or your Adam's apple. I used to go through this crucial moment, back when I was practicing back somersaults, two and one half twists from 1 meter. I learned the hard way that whenever I felt I was going over on this one to scoop the entry. I might even go way over, but I was still alive when the dive was finished.

If you are just practicing and not in a meet, you can add an even more effective way to slow your rotation down by raising your arms above your head

upon hitting the water. In a meet, you would automatically lose up to two points for the dive, if you did this, no matter how straight you were upon entry. Will you remember not to raise your arms, if you are in a meet and feel you are going over?

That's a decision that makes diving exciting.

FORWARD TWISTERS one or more: Feet first: The same techniques for back or reverse foot first entries.

If you are planning on entering the water head first, there is that little detail about deciding when you have finished your twist, and now want to duck or bend forward, in order to line up for a head first entry. Well, if you square off, you will feel it (the action of stopping the twist). So now don't take all day to then duck or bend forward.

That action enables you to get your butt up, which then helps you lift your legs to virtually straight.

WHAT IF YOU DON'T HAVE A KNOWLEDGEABLE ROPE HOLDER, TRAMPOLINE, OVERHEAD RIG OR BELTS?

Learning a multiple twister off a diving board is a whole process that, by its very nature, **MUST** take longer than with a good rope holder, trampoline, overhead rig and belts. The crucial point is, you must be able to execute a single somersault that lands you on your feet. You must be able to land it straight up. That is **STEP ONE**.

STEP TWO: Execute the somersault and wait until you are going into the water, before wrapping your arms. You must not rush the wrap. The idea is, wait until it is too late for a regular competitive dive. **WHY?** Because the diver who wraps too soon will quite regularly bend the body one way or the other. **RESULT:**

If the landing is less than straight, you risk landing on an ear (or other part that you don't want to land on), and you can easily bust an eardrum!

You **MUST** be patient on this exercise, because rushing the twist and spoiling your position (a straight up landing) will result in some kind of smack.

Because this moment in the training is so crucial and potentially dangerous, I insist that all my divers executing these lead-ups wear wrestling headgear to protect the ears. Again, this what I call "the margin for error." It is not guaranteed that the headgear will really protect your ear, but the rationale is that it will break up the flat force of the water. I don't guarantee that this will work every time. In fact, needing this as a last resort means that the diver has been trying to twist too soon in any case.

So, what to do? Wrap way too late. Do it even after you are disappearing into the water. Once you have learned to wait this long (Be able to repeat the same exercise more than two or three times), you can wrap a little sooner.

STEP THREE: This means waiting until the landing straight up has been achieved, then wrap. The moment is a little sooner than when your head is disappearing into the water. If you can do this, without smacking or getting hurt, you can wrap the twist, **AFTER** the top has been reached.

STEP FOUR: Now you reach the top of your take-off with your arms and body, then wrap. There is no point trying to do this, if you can't wait for that tenth of a second or so after the top has been reached. You must keep the legs and body straight during the twist, no matter which way you started.

BACK AND REVERSE MULTIPLE TWISTERS: The start will be in layout, so these are somewhat safer than forward or inward twisters. The diver must spot something straight ahead during the armswing. A trampoline skill that is very hard to achieve easily off a board is to look for the feet as they come up at 1/2 to 2/3 somersault. You look for them as they reach 45 degrees or more. Another couple tenths of a second, and you look for the board (to get your head straight up in-line with your body), if you are going backward.

I would NEVER start learning this kind of a twist in reverse FIRST. Learn the back twister first.

Of course, as stated before, wait until disappearing into the water, before even thinking of wrapping. Proceed as explained earlier for waiting to wrap. Steps One, Two, Three and Four are not to be taken lightly.

FORWARD AND INWARD TWISTERS:

It is true that these twisters can be started in tuck, and the forward 2 1/2 somersault with at least 1 twist has been done, starting in tuck (to get the somersault moving). A beginning, intermediate or even skilled diver doesn't just execute this dive off a board, without risking a bad result. Learn a forward twister first, in any case. In addition, some people don't like the looks of a twister starting in tuck, because it is too mangled or weird looking. At some point, a diver starting in tuck must still kick out into layout, in order to twist.

THE KEY MOVE: To get off and away from the board, the diver must lean. This can be done the easiest in an open PIKE, followed immediately by a kick into layout. The takeoff can also be done in layout (although this one is not so easy). If in layout, the diver will have to lean with the hips as well as the upper torso, somewhat like a forward dive straight...but the kick with the feet, legs and toes will be sooner and/or faster than with PIKE.

Whether starting by setting the somersault in PIKE or in LAYOUT, the crucial part is keeping the head in line with the upper torso. The wrong tendency, which I have to work at correcting in my own diving, is to duck the head down while setting the arms. You must focus on a spot straight ahead, as you set your arms; then, when the set in PIKE has been reached, focus on a spot in the water in front, or you must keep the focus straight ahead, if you are setting in layout.

If setting in PIKE, you must kick out to layout immediately. You may help accentuate this kick by pushing through your feet and TOES.

Of course, once you have started the KICK, you will no longer see straight ahead or a spot on the water, BECAUSE now you are somersaulting. As you come around, you want to spot something straight ahead, so as to keep your head up and in-line with your now straight body position.

As stated before, there are steps in this process. If you try to rush them, you can easily end up smacking pretty hard.

HALF TWISTS; Forward or Inward: This involves a head first entry, and a whole different set of basic moves, except for the actual entry. The entries involve the same principles already described for dives going over. For dives going short, you are kind of out of luck: you can always scoop by lifting your head (and possibly get away with it) but the whole dive will look bad anyway. If you are long, going over, then the pike somersault under the water can always

help to clean up and entry, or save your back. **AGAIN**, this involves the principle of the margin for error: you should play this one to risk going over, rather than going short. Your chances for cleaning up the entry are much better, if you are slightly long, than if you are slightly short.

The beginning of a forward half twist, or an inward half twist is very different from somersaults. And **yet another type of beginning** is also basic for back or reverse one half twists.

Shall we go into the beginnings?

THE TOP OF A FORWARD OR INWARD 1/2 TWIST(position: straight); The classic American method has traditionally produced better results than the European, or what came to be called the "Russian Half Twist." The American method came, I think, from Mike Peppy at Ohio State, but the master teacher for many of us was Dick Kimball (Michigan). Here's the drill:

1) Stand on the end of a 1 meter board. Bend over and point your hand and arm towards a spot on the bottom that is at about 45 degrees short of a spot straight in front of the board (at an angle that will drive your straight body to the bottom). You have to learn not to jump or spring for this one. Just fall.

Should you keep your foot flat on the board, or rise up with the ankle prior to falling? Here, the problem is: Don't spoil your attempt to fall by introducing other factors. If you actually work the board a bit and then spring, that introduces another factor that can upset your line-up. Either do this from a flat foot, or rise up with the ankle for a second, then execute the fall. Eliminate any spring.

Oops, one other thing: which foot? The one underneath your "lead arm."

Meanwhile, your other arm should be out at your side in an angle back of you, slightly up. This other arm is the "trail arm."

While falling, shove your lead arm and shoulder towards the target spot, straight in front of the board...and keep your eyes on lining up your hand and arm with the target on the bottom. I use a weighted red frisbie as a target. Stretch your whole body towards the target. Your feet and legs want to line up with the target. Don't just fall like a sack of potatoes. Your "lead arm" will determine most of the dive for you, but the "trail arm" does have to finish off by joining the lead arm, just before you hit the water. Don't miss your grab.

THE GRAB

OH! How to grab? Grab the back of one hand with the other hand, AND lock your elbows straight... in line with your entry angle. After that there are also a few choices: You can turn your palms up and out. That makes a hole, through which the rest of your stretched and tight body will pass. But when you land, it does often make a popping sound. An additional wrinkle is to open and slightly curl your fingers, so that some water passes,...thus creating more of a sieve sound and less pop.

In addition, since the preceding is not quite enough, you can then swim your hands down hard to your sides. That also helps suck in some air. Back in the early 60's, some competitors at the AAU nationals in New Haven (maybe it was only one guy) said to me that they thought I was also blowing air out on impact, which supposedly produced another nice sound. I don't know about that one, since I couldn't hear anything while going into the water. Maybe I was doing it subconsciously, expelling air from my lungs. I would like to believe that I was doing precisely that, but I really don't know.

Amongst other great sources of information about all this is Eric Bomberger, a Masters diver from around Lancaster, PA. He worked on this aspect very hard with a coach whose name I have forgotten, but maybe from Maryland.

THE SECOND PART OF THE FWD 1/2 TWIST DRILL

Assuming that you have learned how to fall with no push or spring, and set your lead arm, ending by joining your trail arm and hand to the lead hand just before entry, STAND on the end of the board. To execute this part, you must know how a forward dive straight gets off the board to a safe and "margin for error" distance. This means you will have to lean with both hips and upper torso.

What if you have NEVER attempted a forward dive straight with no arm swing? Well, do a few. Learn to land it at least two feet from the board, or as far as four feet. Once you consistently land it at a safe distance, you can try the 1/2 twist drill. If you skip this part, you are asking for trouble.

As you get into the crouch, hips and upper torso must lean forward, or you will scrape or hit the board tip. If you only lean with the upper torso, you will take off in pike. That would destroy the position. Naughty, naughty.

When you are in the crouch (or squat), you then lean with hips and torso, while pushing through with your legs, calves, and toes. Take the dive out to a minimum of two feet, or maximum of 4 to 5 feet. Don't worry about being "too far" from the board. Ideally, the set should be 3 to 4 feet, so your margin for error should allow for a mistake of one foot closer or further away. At even five feet, you can put this dive in for 7s or 9s. If you are too close, you can get stuck at the top and come too close to the board tip with your toes or legs.

THE SET: To set the top, you want your lead arm to be at a 45% angle, before you even start your leg press. The trail arm should be at a 45% angle back behind. Your eyes should be focused on the target spot at the bottom of the pool.

As you leave the board, move your lead arm towards the target, while not neglecting to push off with no pike in the body line (with a definite lean in hips and torso). Chin up, but eyes focused on the target. Do not lean down with torso. It must be up, as in a forward dive straight.

As soon as you leave the board, move the lead arm into line with your target on the bottom. That will be about 1 1/2 feet. Once off the board and lined up for the entry, complete the hand grab and go for the entry. Only blink your eyes on impact and then open them again, in order to keep going for your target. Moving your lead arm, with the body stretched enough to follow it, should get you into a half twist.

THIRD PART:

This time stand on the end of the board, with feet facing straight ahead. No need to cheat with the feet. Hold both arms up straight, in front of your nose. Sight at eye level straight down the pool to some target at eye level. Go through the same take-off technique as in the second part, but now you set your arms in the air with the lead arm up and at 45%, trail arm back at 45%. As soon as you have set your angle of take-off, with arms at the degrees mentioned, switch your target from the end of the pool to the bottom of the pool (that you targeted in the SECOND PART). Move your lead arm to line up with the new target at the bottom of the pool, and continue with the entry technique learned for the SECOND PART. This progression, when repeated once or twice successfully, gets you ready for a standing forward dive 1/2 twist, complete with arm press (Arms move up first, then sweep down behind

the hips and finally up to in front of your nose for the actual take-off.). Naturally, don't forget to let your legs, knees and feet participate in the take-off.

FOURTH PART: Assuming the preceding drills were completed successfully, you can now put the whole dive together with a hurdle step. Assuming that a forward dive 1/2 twist is just a forward dive straight, with a twist motion somewhere at the top, is a formula for inconsistency. You must break the dive down into its different parts. There is much more to them than meets the eye.

Historical Note: It must be said that the Americans were the ones who came up with a formula and method for the forward dive 1/2 twist that gave it consistency and beauty. The rest of the world, notably the Russians and maybe the Scandinavians, came up with their version. It worked and is beautiful also, but it is VERY hard to learn, AND it seems to be harder to attain consistency with it. But even with the Americans, the "American Method" is not universally shared.

INWARD DIVE 1/2 TWIST.

Everything said about the forward dive 1/2 twist is more or less true about the inward dive 1/2 twist, EXCEPT that now you have to get away from the board, while preserving your straight position. You can't lean in. You have to produce a slight backward lean in the butt and chest, while preserving an apparent upright body posture. What makes the dive look OK is the speed with which you snap your legs into straight (45% angled arms) to get the set. Assuming you get far enough away from the board, you can then go for the entry, similar to what you do for a forward dive 1/2 twist.

Attempting this dive without having mastered a standing forward dive 1/2 twist is really not a very bright thing to do. You won't look or feel good. Average distance from the board will be one to three feet. You must really know what you are doing to mess with this dive. Your margin for error will be considerably reduced.

BACK AND REVERSE DIVES 1/2 TWIST

The place to start is with the back dive 1/2 twist. What follows is not the only way to do this dive, but it is simpler than others, and I think it has more built-in solutions that make it safer and more consistent than some Swedish and other techniques I have seen or filmed.

Whatever: As you bring your arms up in front of your face for the actual take-off, sweep the lead arm up and back to behind your ear (thus pulling your shoulder back and producing a 1/4 twist); allow the trail arm to come up to slightly above chest level and right in front of your face. How high? Experiment. On this one, do less than a perfect top. You must also target something straight behind the board, because this ensures your orientation as to what is happening.

Then, feeling the pull into the 1/4 twist, take your eyes off the target area straight behind the board and look in the direction of the twist. Spot something at the other end of the pool at the same level as your eyes and in line with the lengthwise position of the board. Hold your arms out the way you swept them, and you will initiate the twist. When your eyes see the new target, you will be in a 1/2 twist. Sweep too hard and you might over twist. Sweep too softly and you might not get the whole 1/2 twist. Takes a little practice.

Once the 1/2 twist has been accomplished in the air, keep the arms out as you rotate into entry position; then close for the entry first, with the lead arm that swept backwards. If you close with the trail arm first, you may easily continue to twist, and too much.

As with the forward dive 1/2 twist technique described earlier, the lead arm decides where and how you will line up for the entry. EXCEPT that you stop this twist with your eyes and head, not so much with your lead arm.

Entry tip: if you don't try to spot a definite target place on the surface or at the bottom of the pool, you won't be able to adjust if anything is out of line.

From 1 meter, this back dive 1/2 twist is not too hard to put in the water. But from 3 meter, you will have to allow for more rotation of your whole body mass. If you set this dive from 3 meter at the same angle with the lead arm, and with the same speed, you can easily go into a back somersault with 1/2 twist. That can be quite disagreeable, when you do this the first time,...because you will be panicking about landing on your back. You have to set the trail arm at a lower upward angle than from 1 meter. Be a bit timid the first times you try this.

The way to start, even when you are familiar with the dive from 1 meter: Go through the same arm movement as on 1 meter, but not as hard. Make sure you get your lean away from the board, so that you don't scrape your shins on the board as the result of your timid take-off. Again, this "the margin for error" idea that can get you through the experience with less chance of a bad landing.

REVERSE DIVE 1/2 twist:

The trickiest part of this dive, assuming you can already do a back dive 1/2 twist in layout position, is setting the dive far enough away from the board, so that you have enough distance to clear the board. This concerns your basic take-off technique for a reverse dive straight. If you rip your head or shoulders back to get the top, you risk being over the board. You must learn a reverse dive straight, I would say, so that you have an idea. You don't necessarily have to perfect your reverse dive straight to the point where you use it in competition. You just have to be able to play the take-off, so that you aren't pulling with head or shoulders. Bringing the arms up forcefully in front of your head will induce enough rotation, so that when you spread them, with body stretched under them, the whole body can pull over into the reverse (as long as you have some hip action going forward).

Other tips: Besides the bugaboo of ripping your shoulders back, how can you "cure" a tendency to do that? Think positive: Two things to do: 1) watch your toes much longer as they descend to the board tip from the hurdle; 2) swing your arms up in front of your face faster. Don't go for a spot behind your head. A point in front works fine.

You do have to have some hip forward motion; also up. If there is none, you will get stuck; it's a long way down. That little bit of forward action in the hips will help you get over the top, when you set your arms to the side at the top of the dive.

Now, assuming you can consistently get away from the board at a safe distance in a reverse dive straight, you can initiate the same twisting technique as you learned to do backwards. The targets are the other way around, and they are adjusted a bit, since a reverse dive 1/2 twist turns over with a little more resistance than a back dive 1/2 twist. This is because with the reverse, you have started with more movement away from the board than you will get on a simple back dive 1/2 twist. Targets must be adjusted just a bit, to allow for the resistance factor.

One after thought: you can learn these 1/2 twists on a trampoline three times faster than off a board, BUT there is the landing aspect. You don't want to land head first on a

trampoline! NEVER practice or attempt these tricks, without someone else present who can call for help or drag your body to a safer position. I would even stress that **you must have a qualified trampolinist coaching every aspect.**

On trampoline, you must know how to get a back landing for the forward and inward dives 1/2 twist. You land on the back, with the legs up in a pike, short of straight up. For back and reverse dives 1/2 twist, you land flat on your front. So you should NEVER pull this manoeuvre to land on your head. You must be short. You must be short enough to land with the whole body, chest and legs, flat. Arms preferably out in front.

I personally don't like to work on the inward dive 1/2 twist on trampoline from a standing start, because one doesn't have the time to go through all the points of reference. On the other hand, if I had a rope holder I could trust, and a proper twisting belt, that's different.

As for the back dive 1/2 twist, getting a proper front landing is the main worry. You MUST know how a forward dive straight lands on tramp. If you have a twisting belt and knowledgeable rope holder, you could pass over the whole landing story.

HOW TO START (with no belt): five drills to get the forward dive (straight) in the air and how to land.

1) do a doggy bounce on all fours. Two or three times.

2) with the knees and shins on tramp bed, lean over, put the hands on the bed, bend the elbows and push the hands and arms straight down. This will put you into a rebound. Let your chest go up and arms up and out to the side in a forward dive position. Shoot your legs straight back and hold the whole straight position, while you achieve a lay-out position. Then, when falling on the tramp bed, bring your arms to in front of your chin. You want a flat landing, ABSOLUTELY.

The danger here is going too long (too much rotation) or too short (not enough to get flat). YOU CAN GET HURT. If you are too long, because your legs are above flat, you will land on your chest. That can deliver a shock to the small of your back. And if you have sore or tender ribs, it could also punish them a bit. If you land too short, that can also deliver a shock to the small of your back.

If your coach or trampoline specialist can hold you in a somersaulting belt, you can avoid the whole landing aspect.

From the above, you can guess why I never ask a diver/trampolinist to do too many of these. Just enough to get the idea. But with a belt, we can always do more.

3) Assuming that you can execute #2 safely, start from the knees, trunk upright. Swing the arms as for a forward dive straight, and spring to a layout position in the air that will land you flat. There is no point in trying this, if you can't execute #2 correctly.

4) From a crouch, execute all the previous moves. if successful (You didn't hurt yourself and also landed flat.). If you get hurt, do not persist.

5) From a stand, as if on the tip of a diving board, execute the whole arm swing and forward dive straight, with the idea of landing short, flat on your stomach. It is too dangerous to attempt a complete forward dive straight (as if off a diving board), with maybe a forward pike save at the landing. I once watched in horror, many years ago, as an older man (perhaps in his sixties or seventies) attempted this on a trampoline at a diving clinic. He landed on his head, in a fairly perfect straight position! He never made the pike save attempt. If he had been too early or

too late, he could easily have broken his neck! It turned out that he survived the event, with no sprained neck, shoulder, or broken bones. Was he lucky!

CONCLUSION: The maneuvers on trampoline described above can shorten and speed up the learning process for diving by perhaps 300%, BUT they should **NEVER** be attempted without a qualified trampolinist monitoring the whole thing.

The qualified trampolinist **MUST** know how to do all these moves already. He/she must be aware of the dangers for beginners. He/she should also have appropriate somersaulting and twisting belts available, since certain aspects can also be executed, without risking a landing.

The question remains, is it worth it to go through all these trampoline tricks, without belts? I suppose so, if you haven't got the equipment. But you must be acutely aware of the dangers.

On trampoline, your "margin for error", when executing without a belt, is usually less than the effort needed for a perfect top off a diving board. This excludes back or reverse dives in tuck or pike.

Back or reverse dives straight are in the same danger area as forward and inward dives straight, since the landing is done on the stomach. The use of belts, overhead rig and rope can eliminate that concern, EXCEPT that if you try a back or reverse dive straight in a belt, and if you set the top and try to just hang there, you can again hurt your back. When finishing the top of this dive in a belt, the diver must take the dive a little further through the rotation than just flat in the air. AND the diver never should hang at the top, without tightening the butt, to keep the legs firmly linked to the upper body. Being loose at this point can result in the upper body falling back on its side of the belt, and the legs falling back on the other side. The small of the back will be stressed. Off a diving board, your margin for error is usually more than something that will end you up short, since you can save a dive in the water.

BACK & REVERSE DIVES tuck and pike

A trampoline is one of the best places to learn the tops of these dives. The landings are easier and safer to achieve.

Back dive pike: This is a bit less complicated than tuck, because you don't have to deal with bent legs. The first thing to learn is a back landing. Legs should be up in pike at the landing, short of 90 degrees. Head in, eyes focused on the feet. You can execute this with a weak backward jump, where you raise your legs, in pike, just before landing. Have a spotter hold your back, just below the neck. He/she should be ready to go down to the mat with you, with the focus on preventing your head from rotating or falling backwards on impact.

To get an idea of what this landing feels like, lie on your back, legs up in pike at less than 90 degrees. Your coach will hold your legs and bounce you once or twice, while you maintain your position.

Getting a little braver, start with the arms already up, even with your ears. As you take off, bring the hands forward about 6 inches and, simultaneously, bring your legs up in pike, so that you touch your hands to your toes. While falling to the trampoline bed, keep your eyes focused on your toes, and keep your legs short of vertical,...maybe about 80 degrees.

Next step: Execute a whole backward take-off, with armswing, and reach for the top with your hands. You must be spotting a point straight ahead of you at eye

level. As your arms reach their top, reach forward for the touch and target the toes. Make the touch before you get to the top. Then, as you fall back, keep the eyes focused on the toes.

If you have a belt and a rope holder, you can even try the next step. That involves shoving your hips towards your toes, thus getting you to almost straight for entry. Even without a rope holder, you could do a hint of the same manoeuvre, BUT, if without a belt, you had better be ready to go back into the back landing position, with body in pike and legs on a less than 90 degree angle, before you hit the mat.

BACK AND REVERSE DIVE TUCK

1) Assuming you can safely jump backwards, bring your knees up to belly button level, then fall on your back, with your eyes focused on a target in front of you (so that your head is in on impact with the tramp bed), AND kick your feet and lower legs out, so that you are in PIKE at the landing:

2) Start with arms up, even with or slightly behind the ears. Go for the take-off jump, while focusing on a target, eye level in front of you.

3) Just before the top of the jump, bring your knees up to chest level, while grabbing your shins with a squeeze.

4) Kick your legs out to PIKE, while now focusing on your toes.

5) Allow yourself to fall back on the tramp bed, head in, legs in pike, at an angle less than 90 degrees. There is a variation on this that a beginner should not try:

After the kick out, the diver could indulge in a shove of the hips towards straight, BUT he/she had better then go back into the landing position, with legs in Pike, at less than 90 degrees, head in and with the landing calculated to be on the back.

REVERSE: The diver can then execute a standing reverse dive tuck, with the landing calculated to be at least a foot-length in front of where the toes were on take-off. Mark both points with chalk, and check after the landing to see if the chalk mark in front of the take-off spot was affected by the diver's back upon landing.

You can make this even more realistic by executing a hurdle step or a two-footed jump (the length of your normal hurdle step) to the tip of the board (your chalk mark); then taking off, executing a reverse dive tuck, so as to land with your hips a foot-length in front of where you took off.

A NOTE OF CAUTION AND A CONCLUSION: The various methods for executing the different dives described here are not the only ways to do them. They are simply my own conclusions about them, after having dived competitively and coached for about 56 years. I have a few principles which I have learned to respect, the hard way. Sometimes it was I myself who paid the price of not working hard enough to acquire certain fundamentals. Sometimes it was one of my divers who paid the price. I regret not having insisted on certain fundamental ideas, such as "margin for error." In other cases, I did not realize the danger of certain dives for divers who did not have certain concepts already ingrained, before they attempted the dive (such as the PIKE save for any forward or inward dive attempted from 3 meter [or even 1 meter]).

If you follow certain concepts of safety, diving can be both immensely rewarding for the diver, and the diver can avoid certain "mistakes" that can do him or her great harm. It can be fun such as most people can't even imagine.

Finally, the beauty that can be created and felt is something precious that a mechanical world can never duplicate, because it is attained by a human being who masters him or herself enough, so that moment from the diving board, to the air, to the entry can be like a painting or other work of art (both for the diver and a spectator). There are domains of thought and feeling that have to rank higher than springboard diving, but it is a path that separates one from most crass materialist ventures. Former and present springboard and tower divers usually understand that they are part of a community of interests that sets them apart from others. Nothing to get a swelled head about, but it is another world, where pride of self can be attained, and that should be cherished.

Please note: It almost goes without saying (but I'm saying it!), that I might have left out some important detail. This compilation of solutions, warnings, etc. is naturally open to subtractions, corrections or additions. They are designed to be the key things to remember at certain moments during dives. IF you try them, and somehow something didn't work, I want to hear about it. We are all a bit different, so something I write here may be misunderstood. All these ideas have worked very well for me in my personal diving and as coaching tips for "my" divers.