



# 2019



## Track and Field Pre-Meet Notes



### Rule Change Highlights

- Expanded the current interpretation of foundation garment to include any item worn under the uniform top and/or bottom.
- Slight differences in relay and cross country team member uniforms that do not negatively impact the identification of the team member are acceptable.
- The landing pit shall have a minimum width of 9 feet and the distance from the ten-foot foul line and the farther edge of the landing area shall be at least 32 feet to ensure the pit is within industry standards for safety.
- Measurements should be recorded in discus and javelin to the nearest lesser inch or centimeter.
- Reorganized Rule 8-1-1 to better describe cross country course layout and markings.
- In cross country, the order of finish is based on when the torso crosses the finish line no matter what timing system is used.

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# 2019 Points of Emphasis

## 1. Uniforms

It has become increasingly more difficult to officiate the uniform rule given the increase in the number of programs nationwide that are allowing individual team members the option of independently purchasing either all or part of their team uniform. The slight differences in design of a uniform do not negatively impact the identification of a relay or cross country team by an official. The expectation of this rule is that all relay and cross country team members can be clearly identified as representing the same school through predominant color, school logo, and color combinations of all outer garments.

Through the results of the 2018 Track and Field and Cross Country Questionnaire, the clear majority of coaches, officials and state association personnel surveyed across the nation were in favor of a simplification of the rule. The rules committee took action to help minimize issues related to garments worn underneath the uniform and provide meet officials more flexibility to determine if relay or cross country team members can be clearly identified as representing the same school. Any garments worn under the uniform are not subject to logo/trademark/reference, color or length restrictions. Variations in trim and/or accents within members of the same relay or cross country team should be evaluated on a case-by-case basis as to whether or not these variations negatively impact a meet official's ability to identify teammates. Officials should be able to observe that all members are from the same team.

Under Rule 3-2, the games committee will continue to have the authority to restrict or permit the wearing of any item outside of the required school uniform.

## 2. Wearable Technologies

The availability of wearable technologies that allow individuals to monitor a variety of body functions, including but not limited to, heart rate, blood pressure, pace and distance traveled are readily available and cost effective. Nearly all these wearable technologies can both transmit and receive collected data from other mechanisms. This data can be used to evaluate how the body is performing, and the user can adjust as needed based on that data.



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This type of technology is being incorporated into watches, garments, shoes and jewelry and, in most cases, is nearly impossible to distinguish from the same item type that does not include the technology (e.g., Apple watch vs. traditional watch).

NFHS Track and Field and Cross Country Rules do not prohibit the use of wearable technologies, but Rules 3-2-8a and 4-6-5d state that no competitor may receive electronically transmitted data from a coach or other third party. If such communication is observed by an official, the competitor should be disqualified.



While preventative officiating helps to avoid issues in any event, it is obvious that those trying to police wearable technologies by restricting what can be worn by competitors is asking event officials to perform an impossible task. Restricting the wearing of a watch because it contains GPS capability is futile when the same technology is available in the shoe, the sports bra they have on or the ring they are wearing.

The market for wearable technology is forecasted by most sales and marketing experts to continue to grow – some estimate that nearly 500 million wearables will be sold by 2021. This massive expansion creates the potential for more coaches and athletes to be "connected" through some type of wearable technology. It is important that all involved (administrators, coaches, parents, student-athletes) understand the privacy and legal issues surrounding the sharing of personal biometric information. Discussions and steps should be taken to ensure that compliance with any Federal and State policies or laws are addressed appropriately.

### 3. Officials Safety and Recommendations in Vertical and Horizontal Jumps

The safety of the athletes and officials is most important before, during and after the competition in vertical and horizontal jumps. The safety of athletes is paramount by eliminating hazardous conditions from the venue. This includes foreign debris in the landing area, inspection of the runway for tripping hazards and removing equipment out of harm's way. Always be prepared for the unexpected even though the event seems to be progressing as planned.

In horizontal jumps, make sure pits are full of sand and turned, shovels and rakes are placed tines down after use to avoid accidental injuries. Inspect each takeoff board and pit edges. Also instruct those raking the pit to keep the sand off the track as much as possible.

In vertical jumps, make sure the pits meet the rule standard, they are the correct size and properly padded. Check that each cross-bar meets standards and is clearly marked. In pole vault, double check standards and extenders, and that the planting box is free of water and in good condition.



Do not allow multiple jumpers on the runway at the same time during competition. During warm-ups, pay special attention when athletes are trying to set their marks and other competitors are on the runway or apron. Athletes running away from the pit or mat to set their marks

with or without implements can be hazardous to other competitors and officials in the area if no one is paying attention. Remember to control the runway during practice and during the competition. If another event (i.e., throwing) is in progress near your venue, warn the athletes to pay attention when participating and leaving the event. Officials should always stop the event when safety might be compromised.

Always be attentive when you are at the venue particularly when track events are in progress. Instruct the athletes as to which direction to exit the pit or mat so as not to interfere with on-coming runners or adjacent events.

## Clerking Made Quick and Easy

NFHS Rules 3-7-1 thru 4 define the duties of the clerk of course. However, the rules do not define how to apply these duties, when to perform these duties, and what materials are needed to get these duties accomplished.

How to be a good clerk. BE READY - BE PREPARED! The clerking area often serves several functions. For some it is a rest stop. Others consider it an information and resource station. You, as the clerk, are the subject matter expert on everything from where to check in for field events to the location of the restrooms.

The best way to summarize clerking is regardless of the number of competitors or teams, or if it is an invitational, conference or state championship, clerking is the heartbeat of a track and field meet. Let's examine the roles and responsibilities of the clerk, pre-meet, pre-race, and race time.

### PRE-MEET

- Arrive 90 Minutes prior to the start of the first event with your "Tool Kit" to set-up the Clerking Area

#### Tool Kit Contents:

1. Rules Book
2. Clerking team assignments made by the lead clerk
3. Copies of Meet Schedule
4. Heat Sheets (provided by the Timer - 3 sets)
5. Hip Numbers (provided by meet coordinator)
6. Walkie Talkie (issued by Meet Management)
7. Pencils and Pens
8. Paperclips
9. Stapler
10. Tape
11. Highlighters
12. Safety Pins
13. Blank bibs to replace lost or damaged ones



- 14. Clipboards
- 15. Signage—Men/Boys and Women/Girls
- 16. Gallon size zip lock bags in case of inclement weather
- 17. List of competing teams

**Note:** For meets when a head clerk is designated, the head clerk should have the tool kit. But just in case, always BE READY!

- Tables and chairs should be in place
- Each table should have paper clips, highlighters, safety pins, schedule and signage.
- Pull hip numbers for the races 800 meters and up. Races 400 meters and down sometimes do not require hip numbers because they are run in lanes, with the exception of the 400 meters indoor, where the runners have a cut-in mark.

**Note:** Always keep a set of hip numbers with you in case a runner needs one after he/she is walked to the starting line.)

- Mark the heat sheets with designated report times and time to be at the starting line.

**PRE-RACE**

- After setting up the clerking area, walk the track and double check all the markings for each race, exchange zones and where the cut-in mark is for distance races.
- As you walk the track, make a mental note of key areas; field event locations, medical station, warm up area, timers, announcer, restrooms, and water/concessions.
- Make it point to introduce yourself to the starters, field referee and running referee.

**Note:** Synchronize your watch with the starter(s) and the announcer.

**RACE TIME**

IMPORTANT! It is the responsibility of the clerks to keep the meet on schedule.

- When athletes start checking in:
  1. Check to determine if spikes have been checked (some venues check spikes as you enter).
  2. If there are bib numbers, check to make sure each athlete has the correct number (listed on head sheet).
  3. For relay teams make sure all the athletes are there and double check the uniforms.
  4. Give lane assignments.

**Line Clerks**

1. Conducts a final check of athletes for designated heats in the holding area.
2. Places athletes in order by lane.
3. Provides race and advancement information.
4. Escorts athletes to the starting line.
5. Give instructions for setting blocks for races 400 meters and under, cut-in for races 800 meters above (waterfall if needed) and exchange zone for relays.



6. Check to confirm athletes are in the correct lane or lined up in order.
7. Inform the Starter that you are handing the athletes over to him/her and step away to check in your next heat and or next event.

On the high school level, there will be meets when you are the clerking team and your assistants are volunteers and/or parents. Stay calm and be organized. It is crucial that everyone has clearly defined roles and responsibilities, a strong knowledge of the facility, and an understanding of the NFHS Track & Field Rules. Competitors, parents, and coaches appreciate the smooth, efficient, knowledgeable clerk and the stability he/she provides.

Remember to, BE READY - BE PREPARED and you will set the stages for a great meet which will be an enjoyable experience for all involved.

## NFHS High School Participation Survey Results



## Safety Recommendations for the Jumping Events

One of the 2019 NFHS Track & Field Points of Emphasis is safety in the jumping events. Safety is a concern of all parties involved with the planning and administration of a track & field meet, as well as the officials officiating the meet. Safety concerns manifest themselves prior to, during, and after jumps warm-ups and competitions.

### **PRIOR TO WARM-UPS & COMPETITION**

Meet administration should ensure that the following are in place:

1. Barriers, often in the form of flagging, should be placed adjacent to competition areas to prevent non-competitors from crossing the runways/aprons.
2. Cones should be positioned at each venue, on the runway or apron, indicating the closure of the event runway, apron, and/ or approach.
3. Equipment that conforms to NFHS specifications and all State and/or Association adaptations should be appropriately placed at the venues.

If the jumps are conducted on the infield, officials should be notified beforehand whether the athletes will be able to cross the track while running events are occurring. Typically, this decision rests with the Games Committee and should be determined well in advance (i.e., days before) of the competition. If any of these events are in close proximity to other field/running events, then it is critical for the official(s) to determine in which direction the competitors should exit the landing pad/pit so as to not interfere with other concurrent competition.

Officials at each event venue should arrive one hour prior to the start time of competition to:

1. Inspect venue and all equipment ensuring all are in proper working order.
2. Inform meet management of any specific safety concerns which need to be rectified prior to warm-ups and competition.
3. Meet with event workers and review safety concerns, rules, and regulations for that event.

Each jumps venue presents a specific set of rules and regulations which govern the safety of that event. One hour prior to the start of competition, the official at that event should conduct a pre-event check. Let us examine each event.

### **Long Jump & Triple Jump**

1. Place a cone on the runway directly on the nearest take off board, as an indicator that the runway is closed for warm-up.
2. Ensure the landing pit is be filled with sand or other suitable material to a depth of at least 12 inches (this minimum depth is new for 2019 (Rule 6-9-4)).
3. Inspect the takeoff board, verifying that it is set firmly in the ground level with the runway and the surface of the landing pit (Rule 6-9-3).



4. Verify that the pit size requirements of Rule 6-9-5 are met. (Note: review article in this document)
5. Check to make sure there are no protruding or unwanted (i.e., loose spikes, rusty metal) objects.
6. The sand should be always be moistened and turned over prior to competition to prevent injuries that otherwise would occur with impact with a harder, dry surface.
7. It is important that rakes or any other leveling tools be placed in proper orientation (i.e., raking spikes down) so to prevent injury to competitors and non-competitors alike.

### **High Jump**

1. Place a cone on the apron directly in front of the pit, as an indicator that the pit is closed for warm-up jumping.
2. Ensure the landing pad itself is made of two or more sections that should be attached to one another and include a common cover extending over all sections (Rule 6-4-3).
3. Verify that any hard surface which may include concrete, wood or asphalt that extend out from beneath the sides and back of the landing pads shall be covered with a minimum of 2-inch thick foam or "other suitable material" (Rule 6-4-4).
4. Check to make sure there are no protruding or unwanted (i.e., loose spikes, rusty metal) objects, in the cover of the landing system.
5. Check the area on the apron where the plant foot is placed. Is this section of the turf worn? If yes, then consider repositioning the landing pits/standards.



### **Pole Vault**

1. Place a cone on the runway directly in front of the pit, as an indicator that the pit is closed for warm-up jumping.
2. Ensure the landing pad itself is made of two or more sections that should be attached to one another and include a common cover extending over all sections (Rule 6-5-7).
3. Verify that any hard surface which may include concrete, wood or asphalt that extend out from beneath the sides and back of the landing pads shall be covered with a minimum of 2-inch thick foam or "other suitable material" (Rule 6-5-9).
4. Check the planting box padding ensuring applicable ASTM Specification Standards are met (Rule 6-5-14).
5. Inspect the front sections of landing system, known as front buns, to verify requirements of Rule 6-5-8.
6. Check to make sure there are no protruding or unwanted (i.e., loose spikes, rusty metal) objects, in the cover of the landing system.

NOTE: Review article in this document about running the pole vault event.



## **DURING WARM-UPS & COMPETITION**

Before a venue is declared open by the meet management for warm-ups, all persons working the event should be in place to provide a safe competitive environment and to ensure the safety of the competitors. Remove the cone from the runway and verbally announce the venue open for warm-ups.

### **Long Jump & Triple Jump**

After each competitors attempt, the official should step on to the runway to act as a physical barrier preventing the next competitor from starting the their attempts when the pit, or landing area, is not ready. In addition, a cone may be placed on the runway until the pit is signaled ready.



### **High Jump**

Competitors will be approaching the pit from either the left or right side of the apron. An official should be assigned to designate which athletes may commence their approach so to prevent any collisions between high jumpers. During the course of warm-ups/competition, there is a tendency for the right and left sections of the landing pads to separate and create a gap, creating a safety hazard. Monitor and make sure these sections are kept together throughout warm-ups/competition.

### **Pole Vault**

After each competitors attempt, the official should step on to the runway to act as a physical barrier preventing the next competitor from starting their attempts when the pit, or landing area, is not ready. In addition, a cone may be placed on the runway until the pit is signaled ready.

## **AFTER WARM-UPS & COMPETITION**

The roles and responsibilities of the officials of the event continue upon the conclusion of the competition. A cone should be positioned at the venue, on the runway or apron, indicating the closure of the event runway, apron, and/ or approach. In the vertical jumps, the crossbar should be taken down, and the landing pit covered.

Safety in the jumping events is a priority task mandated for meet management, officials, and workers. It requires preplanning, constant attention, and vigilance. Working together to provide a safe environment for competition will enhance the competitive opportunities for each competitor.

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## **Uniform Regulations—Individual, Relay and Cross Country**

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Recent changes in the NFHS uniform rules have simplified the rule regarding what is considered a foundation garment. In addition, the changes now allow schools more options in meeting the uniform rule as it pertains to relay and cross-country teams.

The interpretation of what is a foundation garment was expanded and clearly defined in Rule 4-3-1 thru 7. Now, any and all visible garments, worn under the uniform top and/or bottom, shall be considered a foundation garment. A foundation garment is no longer subject to logo, trademark, color or length restrictions.

While the rules were rewritten to allow schools more options in meeting uniform requirements, for relay and cross-country teams, the rule continues to emphasize that teams must wear uniforms that clearly identify them as members from the same team. Identification will be made through predominant color, school logo, and color combination of all outer garments worn as a uniform (Rule 4-3-2). The rationale being that slight differences in the uniform do not negatively impact the identification of a relay or cross-country team.

NFHS rules regarding uniforms stem from the premise that all competitors from the same team should be recognizable. As defined in Rule 4-3-1b, a competitor's uniform must be school-issued or school-approved. The uniform top, bottom, or one-piece uniform may have the school name, logo, nickname and/or the competitors name. Any outer garment that is school-issued or school-approved (t-shirts, sweatpants, tights, etc.) becomes the official uniform, when worn in competition. The rule allows for varying styles of bottoms such as boxer-type or compression-style shorts for both boys and girls. Additionally, girls may wear closed-leg briefs, but French or high-cut apparel are illegal uniform bottoms.



The competitor's uniform must be worn as the manufacturer intended. Requirements include that tops shall not be knotted, and bare midriff tops are not allowed. A uniform top must hang below or be tucked into the waistband of the uniform bottom when the competitor is standing up right, and the waistband must be worn above the competitor's hips.

Rules regarding logos, American flags and commemorative/memorial patches on the uniform remain unchanged. A single manufacturer's logo, with no dimension more than 2 ¼ inches, and total area no more the 2 ¼ square inches is permitted on either piece of a 2-piece uniform, or one-piece uniform. An American flag may also be worn on the uniform, provided it does not exceed 2 x 3 inches in size. State association adoption may allow commemorative or memorial patches, provided they do not exceed 4 square inches.

Coaches need to be aware that the rules in some states and/or associations may be different than the NFHS rule book and the Games Committee still has the authority to restrict or permit the wearing of any item outside the required school uniform. Always review state and/or association adaptations for uniform rules clarification.

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## Horizontal Jump Pits—Size Requirements

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In 2019, Rule 6-9-4 & 6-9-5 have been changed to address the horizontal jump pit size and runway requirements. These changes are made to improve the safety of the events for all competitors.

The first change is in Rule 6-9-4 as it defines the depth of the sand in the pit. Previously the rule just called for the pit to be filled with sand or other soft material to a depth that will ensure a safe landing. The rule now requires that depth to be at least 12 inches (30 centimeters). As in the past, the takeoff board must be the same level as the top of the pit.

Rules 6-9-5a and b provide the biggest change to the Long Jump and Triple Jump. The length of the pit is now defined. Previously pits had a minimum length of 15 feet. Given that some takeoff boards can be as close as three feet from the pit, that presents a potential safety issue for the competitors that can jump farther.

Rule 6-9-5a addresses this safety issue, in the Long Jump, by requiring a distance from a 10' takeoff board to the back end of the pit to be at least 32 feet (10 meters). The takeoff board can be no closer than 3 feet (1 meter) from the pit, but the standard distance is 10 feet (3 meters). This does not mean that a 10-foot board is required to be used, just that the new rule requires that this is the board from which the length of the pit is to be measured.

QUESTION: Does this mean that no board can be closer to the pit than the board that meets the 32-foot requirement?

ANSWER: No. Let us examine a current pit that measures 15 feet. That would indicate that the takeoff board would have to be at 17 feet. Most athletes in the long jump are not going to be able to make the pit at that board distance. Thus, the note at the end of 6-9-5 comes into play. Takeoff boards may be adjusted based on the level of competition. So, a 10-foot jumper could use an 8-foot board and still be within the intent of the rule to create a safe environment for the competitors.



In a similar fashion, Rule 6-9-5b provides further definition to the takeoff board in the triple jump. The rule change also addresses the safety issue by requiring a distance from the takeoff board to the nearer edge of the landing pit be 36 feet (11 meters) for men and 27.89 feet (8.5 meters) for women. Take off board distances of 32 feet (10 meters) and 26 feet (8 meters), respectively, are recommended.

For the triple jump that note, at the end of 6-9-5 will come into play more often. Takeoff board distances should be chosen by the coach so that the athlete takes off on the jump from the takeoff board and lands no further than the middle of the pit.

The intent of these horizontal jumps rule changes is to eliminate the potential for competitors jumping so far into the pit that there is danger of contacting the far edge of the landing pit and causing injury. Coaches are empowered to ensure and maintain the safety of the competitors, when selecting the appropriate take off board.

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## Determining Place Finish in Cross Country Meets

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Beginning in 2019 the order of finish in a cross country race will be determined by the torso of the competitor, as they break the plane of the finish line, when an image based timing system is utilized (Rule 8-3-2). This will hold true regardless of the type of system being utilized, by meet management, to determine the finish. Let us review several scenarios.

**SCENARIO #1:** A meet of any number of teams utilizing hand held timing.

**Order of Finish Determined By** - The torso of the competitor, as they break the plane of the finish line.

**SCENARIO #2:** A Large Varsity/JV invitational utilizing only computerized transponders/chips.

**Order of Finish Determined By** - The order recorded by the transponder/chips.

**SCENARIO #3:** A Varsity /JV invitational utilizing computerized transponders/chips and an image-based timing system.

**Order of Finish Determined By** - The torso of the competitor, as they break the plane of the finish line.

We should remember that computerized transponders take on two forms:

1. A bib transponder with a single chip
2. Two (2) transponder chips per runner with one(1) chip attached to each shoe

A bib transponder or two transponders/chips (one per shoe) is the preferred method for utilizing computerized transponders/chips is one chip per shoe. A competitor must wear the assigned computerized transponder/chips during competition, if the competitor does not wear or alters a transponder they will be disqualified. It is also recommended that meet management also use an image-based timing system. This will serve the dual purpose of verifying the order of finish and also serve to assist in challenges to the order of finish.

Officials need to station themselves at the finish line to assist in determining the order of finish and to observe the competitors as they complete the competition. It is important that the finish line be clearly marked and visible.

A finish corral is recommended at all cross country meets in which the transponder system is used. At meets that are not using a chip-based timing system the use of a chute is recommended, to provide accuracy and fairness to the competitors. When the order of finish is determined by the official at the finish line their decision is final and without appeal except for possible action taken by the meet referee or the jury of appeals.



Proper finish line procedures will contribute to a well-run meet free of unnecessary controversy. A pre-meet conference for planning and coordinating all responsibilities for finish-line officials is a fundamental requirement for efficient meet administration. The meet Referee should schedule a pre-meet conference with all finish line personnel.

## Officiating the 4x400 Meter Relay Exchange Zones

Each state high school association designates the minimum number of officials required to officiate a high school track & field meet. The number of officials is crucial to properly officiate, supervise, and provide adequate instructions, for each exchange in the 4 x 400m Relay. A minimum of three (3) officials is required. Meet management should make their officiating assignments based on the number and experience of the officials, the number of competing teams, and the level of competition of the meet.



### First Exchange:

The lead-off runners must run the entire first lap in assigned lanes and the baton shall be handed to runner #2 within the exchange zone and in their assigned lane. After passing the baton, the relieved competitor should stand still or jog straight ahead and step off the track when clear (Rule 5-10-8).

The second runners must be positioned entirely within the exchange zone in their assigned lane and receive the baton within the boundaries of that zone, stay in the assigned lane around the curve and cut in after passing the break-line.

**Official's Position and Duties:** There should be at least one official assigned to monitor the beginning of the exchange zones to make sure that the handoffs do not take place prior to the zone. Two officials should be assigned to monitor the end of the exchange zones to make sure the handoffs are completed entirely within the zone. One of these officials should take the inside lanes and the other official should take the outside lanes.

### Second and Third Exchanges:

As the second and third runners near completion of their respective legs and approach the common exchange zone they must locate their teammate and run in a direct route to that teammate without interfering with other runners. The exchange of the baton between the teammates must be completed within the boundaries of the exchange zone. After completing the handoff the incoming runner should immediately exit the track if the exchange took place in lane one. If the exchange took place in any other lane the incoming runner should continue moving forward in a straight line and look over his/her shoulder to determine if the track is clear and if so move in that direction and exit the track without interfering with any outgoing or incoming runners.



The outgoing runners must be positioned entirely within the common exchange zone while waiting for the incoming runner. Upon completion of the handoff it is the responsibility of the outgoing runner to work their way through the exchange zone and toward the inside of the track without interfering with either outgoing or incoming runners.

**Official's Position and Duties:** One official may assist the outgoing runners into position inside the front line of the common exchange zone. This official should allow the runners to po-

sition themselves as teams may have best practices on where to receive the baton.

The officials who were monitoring the end of the staggered exchange zones should move into position to monitor the end of the common exchange zone to make sure that all handoffs are completed entirely within the zone. The best positioning for this is usually toward the outside of the track because a position on the inside of the track would be in the high traffic area of exiting runners and might actually interfere with their ability to vacate the track in a timely fashion. One of these officials might find it advantageous to actually move into the zone a step or two to communicate with the incoming runners following their handoff concerning their best options to avoid interfering with other runners and when to exit the track.

All of the officials involved with this race are multi-tasking. Roles and responsibilities vary for each handoff. In addition to confirming that all exchanges take place entirely within the exchange zone, the officials working the exchange are responsible for monitoring the runners concerning interference with other runners while entering the exchange zone, within the exchange zone and exiting the exchange zone.

## The Legality of Wearable Technology

Wearable Technology is a Point of Emphasis in the 2019 NFHS Track & Field rules book, which can be referenced elsewhere in this document. Let's review what is permitted technology, what is prohibited and the penalty for its use.

**Permitted Technology:** Watches, garments, shoes, jewelry, etc. now can give competitors access to a variety of data. Athletes can use this data post-race to evaluate performances.

**Prohibited Technology:** Coaches, parents, administrators and other competitors may not use technology to transmit athlete-specific information to a competitor during the course of competition. No competitor may receive electronically transmitted data from a coach or other third party. This prohibition begins once the athlete enters the clerking area, to check in for a running event, or upon reporting for a field event, to check in.



**Penalty:** Electronic devices shall not be used to transmit information to a competitor during a race or trial. A competitor or coach observed, by an official, using wearable technology, and communicating or transmitting data, shall be reported to the Referee. The competitor shall be disqualified from the event. A coach shall be disqualified, from the meet, for unsporting conduct.

From a practical standpoint, incoming information to a competitor may prove to be more distracting than helpful. A case in point is the number of runners who slow down or throw themselves off-gait near the finish line to hit their stop watch. This is more noticeable in distance and cross country events. Imagine the distraction coming from an outside source.

The subject of wearable technology should be covered and discussed at every pre-meet coaches meeting. Preventive officiating should be utilized to advise and remind coaches of allowed and prohibited technology, and the penalties involved. Coaches may continue to coach their athletes during competition from unrestricted areas; just no via transmitted electronic means.

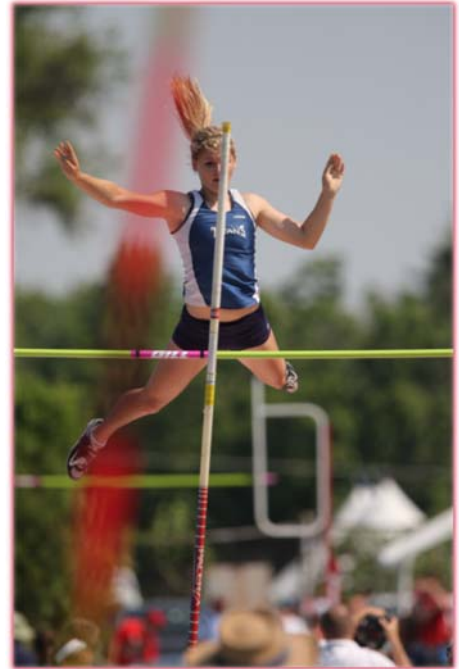
## Setting Up The Pole Vault Pit

When you officiate the pole vault, you are officiating the most technically challenging event in track and field. Assuming you have a bag full of equipment and other qualified officials to help you get the pits set up correctly, the second half of this article is for you. However, if you are new to the event, or don't have any equipment beyond a tape measure and a clipboard, you may want to read the simplified section, first and then the more technically advanced explanation.

### THE "RIGHT NOW" WAY

<b>Vaulting Pole</b>	The fiberglass pole used to propel the athlete over the bar. They can be of any length and are rated by weight capacity (e.g. a 14/65 pole would be 14' long and rated for an athlete up to 165lbs).
<b>Crossbar</b>	The fiberglass bar that the athlete jumps over to complete a successful vault.
<b>Standards</b>	The steel or aluminum implements that move forwards and backwards and up and down to determine the height and depth of the crossbar. The standards usually consist of a rectangular slotted base and a wheeled vertical piece.
<b>Stop box</b>	The angled box set into the ground that the vaulting pole is slid into during a vault.
<b>Pits</b>	The landing pads surrounding the stop box where the athlete lands after vaulting.
<b>Box Collar</b>	A horseshoe shaped bright yellow pad certified by ASTM and placed around the stop box and under the traditional pads to increase safety for the athletes.
<b>Crossbar lifter</b>	Any tool that can be used to lift the crossbar from the ground onto the standard pegs. It can be homemade or purchased.
<b>Runway</b>	The 42" - 48" wide lane that the athlete runs down towards the pits.
<b>Zero Point</b>	The inside edge of the top of the back of the stop box.
<b>Take-off mark</b>	The spot at which the athlete's foot leaves the ground during a vault.
<b>Starting Mark</b>	A spot at the top of the runway where the athlete begins her run toward the pit.
<b>Depth Setting</b>	The distance in inches where the athlete wants the crossbar placed in relation to the zero point.
<b>Height Measurement</b>	The standards will show the height of the crossbar (usually in both inches and centimeters) but you should confirm that they are accurate by measuring with a tape measure, laser or other means. Measurements are made at the top of the stop box (ground level) not the bottom of the box and to the top of the crossbar.

1. Get there early.
2. Walk around the pits making sure that all the straps are connected and tight, the top cover is in place and connected, and there are no objects on the ground that could hurt anyone who rolled off the pits and landed on them.
3. If all you have is a tape measure and there are no permanent standards in place, ask for help and move the two front pads out of the way temporarily. With the two pads out of the way, stretch a tape measure across the width of the pads keeping the tape measure parallel to and directly above the rear of the stop box. Now that you have established the "zero line" place a mark on the ground (borrow some tape, scratch the grass, draw with a Sharpie) on both sides and then replace the pads.
4. Borrow an athlete's pole and place it in the box. With the end of the pole at the bottom of the box, move the pole along all 3 edges of the box and confirm that the box collar and pits are not infringing upon the vertical space of the box. Note that the angles of each side are different, so you may have to move the pits forward, backward, or to the side in order to ensure that the pole can move thru the vault without being affected by the pits.
5. If the standards have not already been put together and placed, slide the long vertical piece into the rectangular base and place one standard on each side of the pits. Note that the little pegs that hold the crossbar have to be facing towards the pits, not the runway, and the "zero" mark should be even with the "zero line" you created earlier.
6. Grab the crossbar and two chairs (or hurdles). Spread the chairs out about 12ft apart and facing away from each other. Set the crossbar on the top of the back of the chairs so that each end overhangs by a foot or so. You will notice that the crossbar has a natural sag so place a mark in the middle of the crossbar on the "bottom side" so you can see it when it is up on the standards. While keeping the crossbar facing down, rotate the brightly colored rubber ends until they sit flat on the pegs. Lastly, measure the distance between the centers of the rubber ends to make sure that when they are sitting on the pegs, they will be between 13 feet, 8 inches and 14 feet, 8 inches and will fit on the standards pegs. Make a sharpie mark on the crossbar and rubber ends noting the position of the ends should they get twisted during the competition.



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7. There are two sets of numbers on the standards. The first set measures the height of the crossbar and runs vertically up the side of the standard. The second set measures the depth of the crossbar and runs horizontally across the rectangular base on the ground. Release the locking screw and move the height of the crossbar to 12' (this is a reference point not a magic number you have to use). Adjust the standard depth setting on the ground to "0". When both sides are at 12' and "0", use the crossbar lifter to put the cross bar on the pegs at 12'.

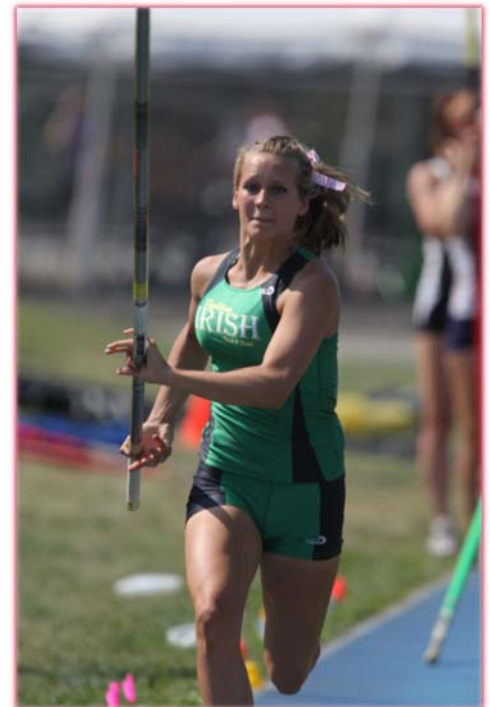




8. Measure and confirm the height is accurate at 12'. You will need to again borrow a pole (it will need to be longer than the height to be measured so go for a 13'-14' pole). You will also need to go to the trainer and borrow a tongue depressor and some athletic tape. Measure up the length of the pole to 12' and tape the tongue depressor just above the 12' mark at a 90 degree angle to the pole. With the pole on the top of the stop box (ground level) push the pole to vertical and see if the crossbar just barely fits below your tongue depressor. If it needs to be raised or lowered, make the adjustment on

the standards so that they agree with your measurement. Then make a note in the margins of your scoresheet that each height during competition must also be adjusted. (e.g. your 12' tongue depressor is 1" above the crossbar when the standards say 12', you raise the standards to 12'1" and confirm that the crossbar now brushes the underside of the tongue depressor. When you start the competition, remember that in order to get 8', you actually need to place the standards at 8'1").

9. Next is to confirm that the standards are parallel to each other and the runway. Place a mark in the middle of the runway about 12ft from the zero line and a second 31.5 inches in from that. Grab a helper and measure the distance from the 12ft mark to a set point on both standards (it could be the locking screw or anything that you can reach easily but should be at least 5ft off the ground). If your 12ft mark is in the middle of the runway and the standards are at the zero point, those measurements will be the same. If not, adjust your mark slightly until they are. Now, move the standards to the 31.5 inches depth setting and remeasure from the closer mark on the runway. These measurements should match your earlier ones. If all 4 measurements are the same, the standards are parallel to each other. If not, adjust the back of the standards in or out until they are the same.
10. Do yourself a favor and mark the locations of the standards on the track surface with a Sharpie so you don't have to do all this work again at the next meet.
11. Last thing is to raise the crossbar up to around 16ft to make sure the crossbar will still fit at the higher heights. If it doesn't, you'll need to place shims under one edge of one side of the standard's rectangular base so that it is no longer leaning out of plumb.
12. Once everything is set, inform the coaches you have set things up as accurately as you can without all the proper equipment and ask them to let you know if they have any problems with what you have done.
13. Open the runway for warm-ups and start asking around for a pair of helpers to put the crossbar up during the meet.



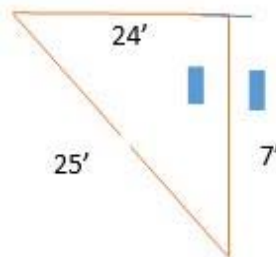
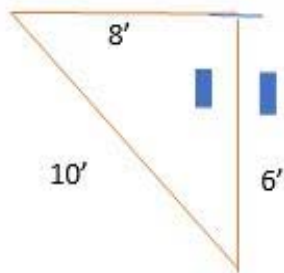
## THE "RIGHT" WAY

### Marking a Zero Line.

Many pole vault venues fail to have a zero-line established. When setting up the pit, this would be a great time to do this. With a zero line, setting standards and making adjustments becomes much easier.

Using Pythagorean triples creating the zero line becomes an easy task. The process is easiest with three people.

1. Equipment needed.
  - a. Three 25-foot tapes.
  - b. A square to tri-square.
  - c. 1" white duct tape. If this is your venue this would be a great time to make the line permanent.
  - d. Carpet tacks.
  - e. Sharpie.
  - f. String.
2. Be sure front sections are removed.
3. Verify that the box is centered within the runway.
4. Find the center of the back of the box and mark it with the Sharpie.
5. Find the center of the runway and place a carpet tack in the center at 6' and 7' from the back of the box. If the box is not centered within the runway, I have used a 7' straight edge and squared it up with the center of back of the box at a 90-degree angle.
6. Run a steel tape 8' out from the center of the back of the box towards the upright. With another tape stretched to 10' go from the 6' mark and intersect the other tape at the 8' mark. Where they meet will be the back of the box at 8'. Mark this with a carpet tack or sharpie. Do this again using 7' down the runway, 24' towards the standard and 25' hypotenuse. Most pits are 19'-21' wide at the front. Hence the 24' to be sure it is outside of the standard pads.



7. Pull a string from the back of the box through the 8' mark to the 24' mark and place multiple marks along the string with either Sharpie or carpet tacks.
8. Start running your 1" duct tape at the edge of your marks from the box to the 24' mark. You can remove excess when you install the pads.
9. Repeat with the other side.

## Installing The Collar

1. It is easiest to install the collar while the front of the pit is not in place. Be sure the collar is ASTM certified. Set the collar so that fits snugly around the box.



## Constructing the Pit:

If you are planning to place a platform under your pit be sure to check with your manufacturer to see what the maximum height requirement is and recommended platform. There could be a danger of changing the slant specifications of the pit.

1. Visualize the pit layout. All hard, unyielding surfaces, stones, etc., in the vicinity of the pit must be covered by the landing pit. If it does not, either remove these safety obstructions or be prepared to have material to cover them once the pit is installed.
2. Place the two units that surround the back of the box in position first. Their joints should meet at the center of the box.
3. Fit all straps for this unit to hold it in place.
4. Most pits then have three back units. Place the center one first. Center this pit with the joint of the box units. Now is a good time to start your Velcro between the box units and



- this unit as you will get a better connection. Also, if there are straps be sure to connect these. Attach all connectors for safety as well as this will slow down movement of the pit.
5. Position the two outside pieces and attach all Velcro strips and straps. Be sure all parts are tight and secure.
  6. Now place the final two front pieces in place and secure with Velcro or straps.
  7. Finally, secure the common cover or pad extending over all sections.

For reference, all of the terminology, dimensions, and diagrams can be found in the 2019 NFHS Track and Field Rule Book, Rule 6-5, pages 47-52.

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## National High School Sports-Related Surveillance Report

As high school sports participation continues to increase in the United States, the number of sports injuries have the potential to increase. The NFHS Sports Medicine Advisory Committee and the NFHS Sport Rules Committees use information from the National High School Sports-Related Injury Surveillance Study (High School RIO™) to monitor rates and patterns of sports injuries among high school athletes. High School RIO™ is currently collecting its 10th year of track and field exposure and injury data.

High School RIO™ data shows that both boys' and girls' track and field have among the lowest injury rates of the 24 sports under surveillance. During the 2016/17 academic year, hip/ thigh/upper leg sprains/strains were by far the most common injury in track and field representing 35.2% of all boys' and 24.8% of all girls' injuries.



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Injury patterns differ by event. For example, pole vaulting accounted for 1.7% of boys track and field injuries and 6.1% of girls track and field injuries. The most common injury from pole vaulting was a sprain/strain, 66.7% for boys and 69.2% for girls. Understanding such patterns of injury is one important tool when considering a new rule change and keeping risk minimization as a priority in the efforts to keep track and field athletes as safe as possible.

If you are interested in more information on the High School RIO™ Study or interested in becoming a reporter for boys' and/or girls' track and field, please visit <http://www.ucdenver.edu/academics/colleges/PublicHealth/research/ResearchProjects/piper/projects/RIO/Pages/Study-Reports.aspx> summary reports.



## Coaches Education Opportunities



- Coaching Track and Field, developed by USA Track and Field and the NFHS is hosted by decorated Olympic athletes Dan O'Brien and Hyleas Fountain.

- The course presents the fundamentals of running, jumping and throwing, as well as the importance of sound mechanics and how to teach these basic skills.

- After taking this course, you will be able to identify key points or stages of a skill, and use visual demonstrations with verbal cues to help athletes execute a particular technique or skill.

- Members of USA Track and Field will receive a \$15 discount as an added benefit.

### Course Objectives

- ◆ Types of races – sprint and endurance
- ◆ Running form – proper posture, arm movement, and leg movement
- ◆ Start and Drive phase – block and standing start
- ◆ Types of jumps – horizontal and vertical
- ◆ Jump elements – approach, take off, flight and landing
- ◆ Throwing – basic skills for each event type
- ◆ How to teach skills for correct form
- ◆ Teaching progressions to combine skills into full movement

### Units

- ◆ Running
- ◆ Jumping
- ◆ Throwing

- Course participants have unlimited access to course & resources for one year from date of purchase.
- This course can be used as an elective to fulfill AIC or CIC certification requirements.

- This course, developed by USA Track and Field, the NCAA and NFHS has been designed to help both coaches and athletes.
- Coaches will learn to develop and teach the introductory skills of pole vaulting to his/her athletes.
- After completing this course, each participant will have a better understanding of the fundamentals of pole vaulting, as well as the best practices and techniques that will help educate and promote safety in the sport.
- Course participants have unlimited access to the course & resources for one year from date of course delivery.
- This course can be used as an elective to fulfill CIC certification requirements.
- The course is approved by NFHS for 3 course clock hours.



### Course Objectives

- ◆ Starting a beginner – teaching proper standing grip height, width of hands on pole, and position of hands on pole
- ◆ How to instruct beginning level pole-vaulters through skill development drills and build confidence
- ◆ Maintaining a safe practice and competition environment – proper pad placement and securing of vault mat pads

### Units

- ◆ Stating a Beginner
- ◆ Basic Laws of Physics
- ◆ Drills and Teaching Techniques
- ◆ Problem Solving
- ◆ Equipment and Facility
- ◆ Interactive Exercise

More Information at [nfhslearn.com](http://nfhslearn.com)!

National Federation of State High School Associations



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