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Developing Champion Athletes at Copperas Cove High School

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THE PURPOSE OF OUR DISTRICT-wide strength and conditioning program is to achieve 2 main goals. First, we want to build champion athletes no matter what their natural ability level. Second, we want to build discipline within each athlete's character. Very simply put, if you cannot run and you are not coachable, you cannot play. Because of the brevity of this column I will give a brief overview of how the coaching staff at Copperas Cove accomplishes these goals.

In order to build the best athlete possible, our training philosophy draws from several different methods. We utilize exercises that are traditionally considered to be weightlifting (Olympic-style), powerlifting, and bodybuilding exercises. The core exercises are primarily multijoint exercises such as the power clean, back squat, bench press, and various pulls. The auxiliary exercises include other multijoint movements combined with some single-joint exercises, such as the bent lateral raise (rear deltoid raise), and various arm development exercises. We use a variety of training methods because we are trying to develop athletes, not weightlifters or bodybuilders. There are specific characteristics from each method that help us accomplish the desired outcome of building a champion athlete.

We have approximately 45 minutes per day of actual work time during our athletic period. Depending on the emphasis of the phase, we only use between 22 and 27 minutes of this for strength training. The remainder of this time is spent performing either sport-specific or speed improvement drills. In order to get the most from this limited training time, we want our athletes to perform every exercise with perfect technique. To help achieve this objective we position at least 1 coach per station. The coaches demand proper technique from each athlete on every repetition of every set. Our head coach demands that we coach in the weight room with the same commitment to excellence that we do on the field. This accountability has helped both our athletes and our coaches strive to raise the level of our program to new heights.

Many high school coaches try to adapt a college strength program to use at their high school or junior high school. Our junior high and younger high school players are not mentally or physically prepared for such a program. Our program is a multilevel progression program broken down into 4 levels with each level building on the previous level. Level I (Table 1) is the base level and is designed to build a foundation of proper technique in the core exercises. From a physiological standpoint, we want to concentrate on 3 points: developing neural pathways, building basic strength, and building muscle balance. Balance will give the athlete a strong foundation in which to build strength, improve posture, and help reduce the risk of injury. Seventh grade athletes follow the Level I program. The Level IV program (Table 2) is the most advanced. It is designed with an emphasis on the peak development of explosion, speed, and functional strength. This program is implemented with our high school upper classmen (sophomore and older). In this level the complexity of the exercis-

Table 1
Level I (7th Grade)

Day 1	Day 2	Day 3
In-season macrocycle (preseason and district phases; 7–9 weeks, 3 days per week)		
Bench press	Incline press	Bench press
Back squat	Front squat	Back squat
Cleans (PVC)	Clean pull (floor)	Cleans (PVC)
Military press	Stand ALT DB press	Military press
1-arm DB row	1-arm DB row (out)	1-arm DB row
Upright row	Shrgus	Upright rows
Back extensions	Reverse back extension	Back extension
Ab circuit	Ab circuit	Ab circuit
In-season macrocycle (postseason phase; 7–9 weeks, 3 days per week)		
Bench press	Incline press	Bench press
Back squat	Front squat	Back squat
Cleans (boxes or 3-position)	Clean pull (floor)	Cleans (boxes or 3-position)
Stand ALT DB press	Military press	Stand ALT DB press
1-arm DB row (out)	1-arm DB row	1-arm DB row (out)
Shrugs	Upright row	Shrugs
Back extensions	Reverse back extension	Back extension
Ab circuit	Ab circuit	Ab circuit
Off-season macrocycle (Mule Dawg Phase; 7–9 weeks, 3 days per week)		
Bench press	Incline press	Bench press
Back squat	Overhead squat (PVC)	Front squat
Cleans (various)	Clean pull (various)	Cleans (various)
Military press	Stand 2-arm DB press	Military press
1-arm DB row	1-arm DB row (out)	1-arm DB row
Upright rows	Shrugs	Upright rows
Back extensions	Reverse back extension	Back extensions
Ab circuit	Ab circuit	Ab circuit
Off-season macrocycle (Iron Dawg phase; 7–9 weeks, 3 days per week)		
Bench press	Incline press	Bench press
Back squat	Overhead squat (bar)	Front squat
Cleans (various)	Clean pull (various)	Clean (various)
Stand 2-arm DB press	Military press	Stand 2-arm DB press
1-arm DB row (out)	1-arm DB row	1-arm DB row (out)
Shrugs	Upright rows	Shrugs
Back extensions	Reverse back extension	Back extensions
Ab circuit	Ab circuit	Ab circuit

Note: The Level I program is designed to set a foundation that each of the following levels can build on by teaching safety, proper technique, and developing basic functional strength. PVC = using PVC pipe; DB = dumbbell; Ab = abdominal; ALT DB = alternating dumbbell.

es is greater than in the other levels. It is built almost entirely around explosive, multijoint, ground-based exercises.

Each level of the program follows an annual plan (Table 3, which is broken down into 3 macrocycles). Each macrocycle is then broken down into smaller mesocycles. For example, our high school in-season macrocycle is made up of 4 mesocycles. The first is the preseason phase, which is approximately 2 weeks in length. It is followed by the nondistrict phase, the district phase, and the play-off phase. In the junior high program, the in-season macrocycle is broken into only 3 mesocycles, as these students do not go to the play-offs. Each of the mesocycles is further broken down into weekly microcycles.

The off-season cycle starts at the beginning of the second semester and continues until we start spring football at the end of the school year. It is made up of 3 mesocycles that are between 4 and 6 weeks long. The first of these is the Mule Dawg phase, which lasts 5 weeks. The goal of this phase is to build lean mass, functional strength, and a solid conditioning base. We train 4 days per week and do sport-specific drills on the off day. We follow a pattern of higher volume (8–12 repetitions and 4–6 sets) and moderate intensity (65–75% of 1 repetition maximum [1RM]). During this phase we use a greater variety of exercises for each body part than in the other phases. We test the athletes for strength, power, and speed prior to the start of this phase and we retest during the fifth week.

The second mesocycle is the Iron Dawg phase. It is a 5–6 week phase that focuses on maximum strength and power development. It usually ends at spring break, as

Table 2
Level IV (10th, 11th, and 12th Grade)

Day 1	Day 2	Day 3	Day 4
In-season macrocycle (Nondistrict and district phases; 7–9 weeks, 3 days per week)			
Bench press	Incline press	Close grip bench press	
Back squat	Front squat	Overhead squat	
Clean (various)	Snatch (various)	Clean	
Jerk	Ground-based multijoint extension machine (2-hand)	Jerk	
Clean pull	Back extension	RDL	
Reverse grip bent row	1-arm DB row	Reverse grip bent row	
In-season macrocycle (district and play-off phases; 7–9 weeks, 3 days per week)			
Bench press	Incline press	Bench press	
Back squat	Front squat	Overhead squat	
Clean (various)	Snatch (various)	Clean	
Jerk	Ground-baed multijoint extension machine (1-hand)	Jerk	
Clean pull	Back extension	RDL	
1-arm DB row	Reverse grip bent row	1-arm DB row	
Off-season macrocycle (Mule Dawg phase; 4–5 weeks, 4 days per week)			
Bench press	Snatch	Bench press	Snatch
Clean	Back squat	Clean + front squat	Back squat
Jerk	Clean pulls	Jerk	RDL
2-arm DB press	Leg press	2-arm DB press	Single-leg squat
Back extension	Reverse back extension	Back extension	Reverse back extension
Upright rows	RG bent rows	Upright rows	RG bent rows
Multishoulder	Shrug	Incline DB press	Shrug
Incline press	Bicep curls	Multishoulder	Biceps curls
AB circuit III (A)	Ab circuit III (B)	AB circuit III (A)	AB circuit III (B)
Off-season macrocycle (Iron Dawg phase; 5–6 weeks, 4 days per week)			
Bench press	Snatch	Bench press	Snatch
Clean	Back squat	Clean + front squat	Back squat
Jerk	Clean pulls	Jerk	RDL
Alt DB press	Leg press	2-arm DB press	Split squats
Jack extension	Reverse back extension	Back extension	Reverse Back extension
Upright rows	RG bent rows	Upright rows	RG bent rows
Multishoulder	Shrug	Incline DB press	Shrug
Incline press	Bicep curls	Multishoulder	Bicep curls
Ab circuit III (A)	Ab circuit III (B)	Ab circuit III (A)	Ab circuit III (B)

Note: DB = dumbbell; RDL = roman deadlift; AB = abdominal; RG = reverse grip.

this is a natural transition period. During this phase we lift 3 days per week. We conclude each lifting day with competitions. On nonlifting days we perform sport-specific drills. In this phase the volume declines proportionally as the intensity increases. We perform 3–5 target sets of between 2 and 6 repetitions, and the intensity level for each target set ranges from 80% to 95% of the 1RM. We also perform plyometrics and medium to short distance speed work during this phase. This phase coordinates

Table 3
Copperas Cove High School Annual Strength and Conditioning Plan 2000

Date		Macro	Reps	Sets	% 1RM	2000 Meso					
	Off-Season						**Mon**	**Tues**	**Wed**	**Thurs**	**Fri**
Jan 5 & 6	Testing days	1									
Jan 10–Feb 11	Mule Dawg phase		8–12	4–6	65–75	1	Wts.	Wts.	Drills	Wts.	Wts.
Feb 14 & 15	Testing days										
Feb 14–Mar 17	Iron Dawg phase		4–6	3–5	80–95	2	Wts/ comp	Drills	Wts/ comp	Drills	Wts/ comp
Mar 16 &17	Testing days										
Mar 20–24	Spring break										
Mar 20–Apr 21	Ham Dawg phase		15 sec each	2–3	40–50	3	Circuit	Drills	Circuit	Drills	Circuit
Apr 20 & 21	Testing days										
Apr 24–May 26	Spring practice		15 sec each	2–3	40–50	4	Practice	Circuit	Practice	Practice	Circuit
May 29–Jun 16	Pre-comp phase I	2	8–12	4–6	65–75	1	Wts/Run	Wts/Run	Drills	Wts/Run	Wts/Run
Jun 19–Jul 7			6–8	3–5	75–85		Wts/Run	Wts/Run	Drills	Wts/Run	Wts/Run
Jul 10–28	Pre-comp phase II		4–6	3–5	80–90	2	Wts/Run	Wts/Run	Drills	Wts/Run	Wts/Run
Jul 31–Aug 11			2–4	3–5	85–95		Wts/Run	Wts/Run	Drills	Wts/Run	Wts/Run
Aug 14–25	Pre-season phase		15 sec each	2–3	40–50	3	Circuit	Practice	Circuit	Practice	Circuit
	In-Season	3					**Mon**	**Tues**	**Wed**	**Thurs**	**Sat**
Aug 28–Sept 29	Non-district phase		8–12	3	60–75	1	Wts	Film	Wts	Film	Wts
Oct 2–Nov 3	District phase		6–8	3	65–80	2	Wts	Film	Wts	Film	Wts
Nov 6–Dec 15	Play-Off phase		4–6	3	70–85	3	Wts	Film	Wts	Film	Wts
Dec 18–22	Christmas break					4			Alternate Activity		
Dec 25–29	Transition phase								Alternate Activity		
Jan 1–5 2001									Alternate Activity		

Note: "Sets" denotes target sets at % of 1RM.

well with our winter sports of powerlifting and track, as we are peaking for the regional and state powerlifting meets and are early in our track season. We retest the week prior to spring break.

After we return from spring break we begin the final off-season phase, which is the Ham Dawg phase. It is a very intense circuit program that incorporates strength exercises, plyometrics, and agility movements. The goal of this phase is to increase work capacity to a peak level while also developing a high degree of mental toughness. This phase lasts between 4 and 5 weeks. We perform this workout 3 days per week, with sport-specific drills being done following the circuit as well as on nonlifting days. During this phase the athletes are put into groups of 3. Each player performs a particular exercise nonstop and as fast as possible for 15 seconds. Then another member of the group performs the same exercise for 15 seconds. When all 3 members have finished their rotation, all groups move to the next station. We usually go through the circuit twice during the workout. When we finish track season we begin spring football practice. Spring ball lasts through the end of the school year, at which time we begin our precompetition cycle. During spring football we continue to perform the circuit in the athletic period 2 days per week in order to maintain our strength levels.

Developing a sound plan and working hard to achieve our goals has helped us build a successful athletic program. In an effort to continue building on this success we are constantly evaluating our program and researching new, more efficient ways to develop our athletes. We encourage all of our athletes to actively participate in the powerlifting program at the high school and the track program at both the junior high and high school, as well as AAU summer track. We are currently considering starting a USAW-sanctioned weightlifting club to encourage the athletes at our 2 junior high schools to compete while also becoming more competent in weightlifting and basic strength exercises. We believe that each thing we do that empowers our athletes to further develop themselves is another opportunity for them and the program to climb to the next level. ▲