



USA Team Handball Athlete Development Pipeline Model – Application Guidelines

The following guidelines are designed to aid local team/clubs, community-based organizations, educational institutions in introducing, teaching, training individuals across gender, age, various levels of handball interest and skill proficiency to reach competency benchmarks perceived by the USA Team Handball as desirable minimums for such athletes to enter our National Team Programs. They are by-product of analysis and finding common ground of several past models prepared by former team handball administrations, particularly from 1996-2000, the EHF's philosophy and methodology of youth handball, and current leadership's vision based on present research, game characteristics, and unique set of American cultural, social as well as psychological traits.

As showed in Chart 1, a player developmental span consists of eight (8) levels, starting with 4-7 years old children and ending with 22 years old+ senior/adult players. General development Levels I through IV, including significantly unique phase of mini-handball, constitute the firm foundation on which all further handball specific training and refinement builds and depends. Those crucial years of early handball initiation, introduction, and learning should be treated with the outmost diligence and consideration for age appropriates of all planned activities. At the conclusion of Level IV, USATH plans to conduct annually National Primary Scouting with a goal of launching such selection program during summer of 2012 and evaluating 300 girls and 300 boys, or 60 per gender per existing region to place first "batch" of most talented new generation athletes into its youngest "Cadets" National Team category. Similar scouting events are planned every year for players reaching ages 16 and 18 as they will move up to youth and junior age categories, respectively.

It is the USATH's mission to provide local handball organizations with comprehensive but simple, clear, and easy to use, level specific, paradigms which, if thoroughly followed, should significantly help teachers/coaches plan and prioritize seasonal training programs and, in relatively short time, dramatically improve not only level of handball across the country but unify various, often widely contrasting local/regional philosophical and methodological tendencies into our own unique American style of handball. However, the following are just minimum guiding principles of what athletes ought to "KNOW, UNDERSTAND & DO" (KUDs) by certain age and/or developmental phase to be prepared for High Performance training and competitions. Ultimately, it will be up to local/teams and clubs to fill the available instruction time with teaching content addressing those desirable "targeted" standards of physical, technical, tactical, and mental preparation ensuring that their players are prepared for entering the world of USA Team Handball National Teams. Naturally, based on particular circumstances, milestone concepts and skill sets can be intermixed, combined, and worked on at faster or slower pace, using flexible progression of training modalities, as long as, at the end of the process, majority of players will be able to exhibit solid proficiency in key areas. At the same time, we foresee the standards

described in the subsequent paragraphs, as living and constantly evolving model that will be continuously monitored and adjusted based on handball’s current and future characteristics as well as our long term projections of how the game and its rules may change and our domestic and/or international strategic vision.

Further, proposed rules’ modification for Levels III & IV & V or 10-16 years age categories (please see Table 2), are meant more in terms in fostering long-term desirable behavioral and developmental outcomes than restricting short-term application during various local competitions. They are divided into two subgroups: voluntary and required. Voluntary rule modification are left at the discretion of local coaches while required ones should be treated as such and implemented in all scrimmages as well as official competitions.

Table 2: Proposed Rule modification for Levels III & IV & V

	Voluntary Rules Modification	Required Rules Modification
Level III or 10-12 years old – Basic Handball 1	<ul style="list-style-type: none"> ● re-start the game after each goal scored directly from the goal ● award 2 points for goals scored by: (a) a goalie, (b) a mid-air shot, (c) a long distance shot from outside 9m line 	<ul style="list-style-type: none"> ● Mandatory use of half-court “Man to Man” defense in first half of each match ● Substitutions allowed only when in possession of the ball (in offense)
Level IV or 12-14 years old – Basic Handball 2	<ul style="list-style-type: none"> ● penalize a back-court play, similar to basketball (Level IV and V) 	Same as Level III
Level V or 14-16 years old – “Cadets”	<ul style="list-style-type: none"> ● allow for basketball’s style defense (Levels III and IV only) ● set maximum number of fouls allowed per team per half followed by progressive punishment rule as 2-minute suspension, penalty shot, etc. (Level III & IV only) ● institute “no ties” rule with either “Sudden death” rule and/or shoot-out procedures to declare a winner for each game 	None

Nevertheless, knowing what to do with present or future handball participants is a sure good start but we can’t stress enough the importance of coaching education, certification, and individual professional coaching development that should parallel all instructional efforts if those are to bring the expected outcomes. Only highly trained coaches, knowing all nuts and bolts of the trade, will be able to put those “ideal” principles to work and, regardless of their personal styles, bring forth quality end results. We are very hopeful that, our long overdue, Coaching Education & Certification Program (CEACP), which should finally launch this spring, will provide additional support pillar for aspiring handball professionals in training high caliber handball athletes. Please visit our website at <http://www.usateamhandball.org/pages/6782> often in the coming weeks for full details.

Chart 1: Player Development Levels



Table 1: USA Team Handball Athlete Development Model & Guiding Principles

Level	Age	Philosophy	Play	Competition	Modalities	Key Content Areas – Skills and Abilities			
						Physical	Technical	Tactical	Social and Psychological
I	4-7	Initiation <ul style="list-style-type: none"> ●"Me & the ball" ●"Me & my friends" 	<ul style="list-style-type: none"> ●The ball as playmate ●Preparatory multi-dimensional , low organization, cooperative games 	No	Animation: <ul style="list-style-type: none"> ●Ball experimentation & experience ●Movement coordination & object manipulation 	<ul style="list-style-type: none"> ●Basic motor skills & body awareness ●coordination ●manipulative skills using both hands and legs ●safe falling methods ●reacting to verbal & visual signals/stimuli 	Attractive & age appropriate activities and games with ball (i.e., rolling, picking-up, carrying, tossing, throwing, catching, bouncing, dribbling, balancing) stimulating sensory systems, imagination and awareness of space, size, weight, distance, etc.	<ul style="list-style-type: none"> ●Belonging to the group ●Playing safe next to another child ●Having fun and success ●Freedom of movement & expression ●fair play 	
II	7-10	Introduction <ul style="list-style-type: none"> ●Mini-handball ●Me & my friends" ●"Against each other" 	<ul style="list-style-type: none"> ●Mini-handball festivals: <ul style="list-style-type: none"> *4+1 player *smaller court *ball size 0 *smaller goals 2,40 x 1,60m ● possible rules adaptations to maintain game flow and aid in learning key concepts 	Yes but limited and end results downplayed <ul style="list-style-type: none"> ●1 referee from the playing group 	Game: <ul style="list-style-type: none"> ●Motivation ●Physical relationship between player and court ●Varied experiences ●Social activities & festivals 	<ul style="list-style-type: none"> ●Fundamental motor skills ●coordination ●flexibility ●reaction time ●stamina ●balance ●rhythm ●spatial awareness ●multi-sport manipulative skills 	Same as Level I plus <ul style="list-style-type: none"> ●basic individual technical offensive skills of passing & catching, dribbling, throwing and defensive skills of footwork, positioning between own goal and an opponent ●applying game elements while moving , running free ●experiencing goalkeeping and court playing ●adapting to sudden changes of playing situations There is no group/team tactical focus at L II	<ul style="list-style-type: none"> ●Cooperation & interaction with a partner to provide a sense of security and belonging ●basic values of sport ●enjoyment ●care for each other ●support common goals 	
			<ul style="list-style-type: none"> ●Transition 	Yes but still	Game & Practice	●"Golden Age"	Please see corresponding Table	●As Level II	

III	10-12	Basic Handball 1	<p>phase to 6+1 * regular court size & goals * ball size 1 * shorter playing time * alternative games 5+1 half court & 2 x 3:3 full court</p> <ul style="list-style-type: none"> possible rules adaptations to reinforce key technical & tactical concepts 	<p>limited and results downplayed</p> <ul style="list-style-type: none"> 1-2 referees from the teams 1 adult helper 	<ul style="list-style-type: none"> No adult practice Development of technical & tactical skills Development of physical abilities Festivals & simple matches 	<p>of motor skill acquisition & refinement</p> <ul style="list-style-type: none"> speed and reaction time agility jumping ability flexibility stamina 	<p>3 for the list of desirable technical and tactical skills that players are expected to be proficient by the time they reach the age of 14 and are subjected to USATH Primary Scouting for “Cadets” National Teams.</p>	<p>plus</p> <ul style="list-style-type: none"> team spirit socialization outside the training hours individual and team goal setting concentration
	IV	12-14	Basic Handball 2	<ul style="list-style-type: none"> 6+1 players girls: ball size 1 boys: ball size 2 shorter playing time possible rules adaptations to reinforce key technical & tactical concepts 	<p>Yes</p> <ul style="list-style-type: none"> 2 referees from teams 1 adult helper 	<p>Practice & Game</p> <ul style="list-style-type: none"> Transition to adult style training Transition to adult style seasonal competitions 	<ul style="list-style-type: none"> Motor skills development continues with an accent on acceleration, speed, aerobic endurance, general muscular strength using own weight agility flexibility 	
			<ul style="list-style-type: none"> Official Rules of the Game but with 	<p>Yes</p> <ul style="list-style-type: none"> 2 court referees 	<p>Training & Game</p> <ul style="list-style-type: none"> Regular training (4-5 times a week) 	<ul style="list-style-type: none"> Motor skills development continues with 	<p>Please see corresponding Table 3 for the list of desirable technical and tactical skills that</p>	<ul style="list-style-type: none"> motivation temper control of

V	14-16	Cadets	possible adaptations to reinforce key technical & tactical concepts	●scorer & time-keeper	●Regular Competition Season (20-30 games per year)	an accent on speed, agility, muscular strength using own weight, partner, medicine balls, elastic bands ●anaerobic endurance using interval training	players are expected to be proficient by the time they reach the age of 16 and are subjected to USATH Secondary Scouting for “Youth” National Teams.	emotions ●attitude ●work ethics ●balancing family, school, social & sport responsibilities
VI	16-18	Youth	●Official Rules of the Game	Yes	Training & Game ● As Level V	●Regular Strength and Conditioning begins based on individual needs, playing positions but with focus on increasing body mass, explosive power, speed, vertical jumping ability ●flexibility	Please see corresponding Table 3 for the list of desirable technical and tactical skills that players are expected to be proficient by the time they reach the age of 18 and are subjected to USATH Ultimate Scouting for Junior/Senior National Teams.	● As Level V plus ●handling increased training load ●rivalry ●individual mental preparation (routines) for games ●dealing with adversity during matches
VII	18-21	Juniors	● Official Rules of the Game	Yes	Training & Game ● Increased training load (5-7 times a week) ●Increased number of regular & post-season championship	●Strength & Conditioning aimed at improving explosiveness, muscular strength and anaerobic	Please see corresponding Table 3 for the list of desirable technical and tactical skills that players are expected to be proficient by the time they reach the age of 21.	●As Level VI plus ●intrinsic motivation ●self-confidence & security ●mental

					matches (30-40 per year)	endurance, injury prevention, maintenance of flexibility, agility & speed		balance and control ●"deliverance" under physical and emotional stress
VIII	22+	Seniors	<ul style="list-style-type: none"> ● Official Rules of the Game 	Yes	Game & Training <ul style="list-style-type: none"> ● Competitions become most prevalent training mean (40-60+ games per season ● Training serves as a support & maintenance mechanism 	<ul style="list-style-type: none"> ● As Level VII plus ● addressing individual needs 	As defined in the specific High Performance adult handball training	<ul style="list-style-type: none"> ● As Level VII plus ● adaptability to demands of various positions and roles an athlete may play in his club and/or National Team ● starting & supporting family ● maternity

Space prohibits addressing specific details of best practices for coaching handball in the United States including, but not limited to, structure of practice session, seasonal and annual program design, drill design, periodization of training, teaching forms, teaching methods, principles of teaching skills, theory and methodology of strength and conditioning, team management, program management, etc. Those topics and more will be a subject of multi-level and multi-year education and certification program. However, included in Table 5 are the most vital characteristics of the 'ideal' XXI century American handball player. We hope it will provoke a lot of soul-searching, thinking, and subsequent action on several fronts of player development. Good luck in your daily efforts to help athletes reach their own unique human and handball potential and please contact us at any time should you have more questions, comments, concerns, recommendations about this and any other handball related topic.

Table 3: Desirable individual and Group/Team Skill Sets per developmental level/age category

Desirable Skills Sets and Knowledge	Level III Handball 1 U-12	Level IV Handball 2 U-14	Level V USATH Cadets U-16	Level VI USATH Youth U-18	Level VII USATH Juniors U-21
Individual Offensive Skills/Concepts					
<u>Stance and Footwork</u> ●Starts, stops, running forward/backward in different directions & with varied speed/rhythm, jumping vertically/horizontally, turns, side-stepping, “piston” movement, etc.	I	P	P	P	M
<u>Passing & Catching</u> ●Catching: high, mid-high, low, from the ground & mid-air, situational, one hand & two hands	I	P	P	P/M	M
●Passing overhand in place, facing partner	I	P	P/M	M	M
●Passing overhand while running in different directions	I	P	P	P	M
●Passing overhand sideways with “piston” movement		I	P	P	M
●Passing overhead sideways while running forward (fast-break)		I	P	P	M
●Situational passes: underhand(1), wrist(2), bounce(3), behind(4), mid-air(5), two-hands (6)		I (1,2,3)	P (1,2,3) I (4,5,6)	P (1,2,3,4,5,6)	P/M
<u>Dribbling/Bouncing</u> ●in place(1) & while running(2)	I	P	P	P/M	M
<u>Shooting</u> (name takes from player’s movement and his position in relation to the ground ●in place (direct free-throw & penalty shot)	I	P	P	P	P/M
●running shot	I	P	P	P/M	M
●set shot (various heights & avoidance)		I	P	P	P/M
●jump shot (vertical & horizontal, avoidance, hip, from Wing and Backcourt positions, after 1-2-3 steps, right & “wrong” foot, two legs take-off)	I	P	P	P	P/M
●special/situational shots: dive(1), lob(2), spin(3), rebound(4), backward(5)		I (1,2,3,4)	P (1,2,3,4) I (5)	P (1,2,3,4,5)	P/M
<u>Fakes</u> (without a ball & with ball) ●single fake (front & back)	I	P	P	P	P/M
●double fake (front & back)		I	P	P	P/M
●spin/turn fake		I	P	P	P/M

●pass fakes (pass-pass, pass-shot combinations)		I	P	P	P/M
●shot fakes (fake shot-pass, fake one shot- shoot another)		I	P	P	P/M
●fake by changing tempo, direction, stopping	I	P	P	P/M	M
●"windmill" or "swim" fake		I	P	P	P/M
Screens/Picks		I	P	P	P
●front, side, back, without & with ball)					
Breaking free from a defender (in typical 2 vs. 2 situation, without & with ball)	I	P	P	P/M	M
●pull aside (see Table 4, diagram A)					
●pull back (see Table 4, diagram B)	I	P	P	P/M	M
●run-in (see Table 4, diagram C)	I	P	P	P/M	M
●run-out (see Table 4, diagram D)	I	P	P	P/M	M
●run-behind (see Table 4, diagram E)	I	P	P	P/M	M
●run-around (see Table 4, diagram F)	I	P	P	P/M	M
●run-in front (see Table 4, diagram G)	I	P	P	P/M	M
●pick & roll		I	P	P/M	M
●attacking gaps (with ball) to score & creating overload situations by engaging 2 defenders and passing the ball in contact with active defense		I	P	P/M	M
Individual Defensive Skills/Concepts					
Stance, Positioning & Footwork	I	P	P	P/M	M
●Ready or basic defensive position					
●Positioning (between own goal and an opponent without or with ball)	I	P	P	P/M	M
●Footwork: side-stepping, running forward/backward in different directions & with varied speed/rhythm and often changes in movement patterns, hedging & pulling-back, etc.	I	P	P	P/M	M
●guarding shooting arm		I	P	P	P/M
●blocking	I	P	P	P	P/M
●intercepting passes	I	P	P	P	P/M
●stealing ball from an opponent holding or dribbling the ball	I	P	P	P	P/M
●reacting to offensive fakes		I	P	P	P/M
●marking loose & tight (controlling space, counting, shifting, switching/taking over		I	P	P	P/M
●guarding line players		I	P	P	P/M

●quick retreat and organizing defensive formation	I	P	P	P	P/M
Goalkeeping Skills/Concepts					
Stance, Positioning, Body Movements & Footwork	I	P	P	P	P/M
●Basic Stance and position variations depending on specific spot in the goal such as wing position or penalty shot, free-throw or fast-break, etc.					
●Footwork: side-stepping, running forward/backward, starts/stops, falling/diving, jumping, rolling, tumbling, etc.	I	P	P	P	P/M
Saving Shots (catching, deflecting ball with arms, legs & torso)	I	P	P	P	P
●Saving low/mid/high shots from Backcourt positions					
● Saving low/mid/high shots from Wing positions	I	P	P	P	P
● Saving low/mid/high shots from Circle positions	I	P	P	P	P
●Saving penalty shots	I	P	P	P	P
●Passing (fast throw-off & fast-break)	I	P	P	P	P
●Intercepting passes	I	P	P	P	P
●Communication & Cooperation with own defense (marking & blocking)		I	P	P	P
●Limiting/"Cutting" shooting angle		I	P	P	P
Group/Team Offensive Skills/Concepts					
Counter-attack or Fast-break	I (1)	P (1) I (2)	P (1,2) I (3)	P (1,2,3)	M (1) P (2,3)
●starting from basic defensive formations: man-to-man defense(1), zone defense(2), combination defense(3)					
●waves: 1 st (winning the ball and first pass), 2 nd (building numerical advantage), 3 rd (finishing the play or transitioning to positional attack)		I	P	P	P
●solving basic situations without and with changing positions and without and with setting screens (1 x 0, 1 x1, 2 x 1, 2 x 2, 3 x 2, 3 x 3)	I	P	P	P	P/M
Positional Attack	I	P	P	P	P/M
●positions (wing, circle, backcourt)					
●attacking without changing positions (per position) directly at defender & between two defenders (creating overload situation)	I	P	P	P	P/M
●attacking with changing positions with ball (1), without ball (2), against ball (3) to support attacking teammate & create overload/numerical advantage situation	I (1,2)	P (1,2) I (3)	P (1,2,3)	P (1,2,3)	P (1,2,3)
●cooperation with closest partners (W-BC-P, LB-CB-RB) and solving basic situations in small groups (2 x 2, 3 x 2, 3 x 3, 4 x 3) using open endings		I	P	P	P
●fundamental principles of attacking against half-court man-to-man defense without & with changing positions and without & with screens	I	P	P	P/M	P/M

●fundamental principles of attacking in 2-1-3 or 3-3 formation using open (A) and closed (B) endings against zone defense: 6:0 (1), 5:1 (2), 4:2 (3), 3:2:1 (4) and combination defenses 5+1 (5), 4+2 (6)		I (A1, A2)	P (A1,A2) I (A3, A4)	P (A1,2,3,4) I (B1,2,3,4) I (A5, A6)	P (A1,2,3,4,5,6) I (B5,B6)
●fundamental principles of attacking in 2-2-2or 4-2 formation using open (A) and closed (B) endings against zone defense: 6:0 (1), 5:1 (2), 4:2 (3), 3:2:1 (4) and combination defenses 5+1 (5), 4+2 (6)		I (A1,A2)	P (A1,A2) I (A3,A4)	P (A1,2,3,4) I (B1,2,3,4) I (A5, A6)	P (A1,2,3,4,5,6) I (B5,B6)
●principles of attacking in2-1-3/2-2-2 formations during numerical advantage situations (6 x 5, 6 x 4)		I	P	P	P
●principles of attacking during numerical disadvantage situations (5 x 6, 4 x 6)		I	P	P	P
●fixed fragments of attack: free-throw, penalty shot, corner, etc.	I	P	P	P	P/M
Group/Team Defensive Skills/Concepts					
Man to Man Defense					
●half-court marking loose & tight without switching/taking over	I	P	P	P/M	P/M
●half-court marking loose & tight with switching/taking over		I	P	P	P/M
Zone Defenses and Combination Defenses					
●principles of defending in 1:5 formation	I	P	P	P/M	M
●principles of defending in 3:3 and/or 3:2:1 formations		I	P	P	P
● principles of defending in 5:1 and/or 6:0 formations		I	P	P	P
● principles of defending in 4:2 formation			I	P	P
● principles of defending in 5+1 and 4+2 formations		I	P	P	P
● principles of defending in 3+3 and/or 4:1+1 formations			I	P	P
● principles of defending during numerical superiority situations (6 x 5, 6 x 4) against various positional attack formations	I	P	P	P	P/M
● principles of defending during numerical inferiority situations (5 x 6, 4 x 6) against various positional attack formations	I	P	P	P	P/M
●principles of defending during fixed fragments of attack: penalty shot, direct free-throw, “wall” blocking		I	P	P	P/M
Handball Knowledge					
●Playing court and equipment	I	P	P/M	M	M
●Basics of officiating (on court and time keeper/ scorer responsibilities)		I	P	P	P
●Process technical/tactical concepts presented & explained visually/verbally on handball magnetic & drawing board		I	P	P/M	M
●Warm-up & Cool-down routines before & and after practice/game	I	P	P	P	P/M

●Basic Rules and Safety	I	P	P	P/M	M
●Handball Today (history, USATH, IHF, EHF, PATHF, Olympics, World Championships, European professional leagues, game characteristics and its conditioning demands, etc.)		I	P	P	P
Other Supplemental Knowledge					
●Proper Nutrition	I	P	P	P	P
●Fundamentals of sport science (single practice, season, training & rest relationship, training load: volume vs. intensity, IRM, set/repetition/weight, ABC of training methods/forms: repetition, interval, submax, circuit, strength vs. power, aerobic vs. anaerobic, testing, elements of fitness such as flexibility, speed, agility, jumping ability, strength, endurance,		I	P	P	P
●Anti-doping (USADA)			I	P	P

Legend: I – introduce P – Practice M – Master

Table 4 presents in a graphic form six fundamental ways to break free from a defender in typical 2 vs. 2 situations without and with ball. All six variants should be mastered by all players as they will use them repeatedly during matches during ever changing situations on the court.

Table 4: Fundamental ways of breaking free from a defender

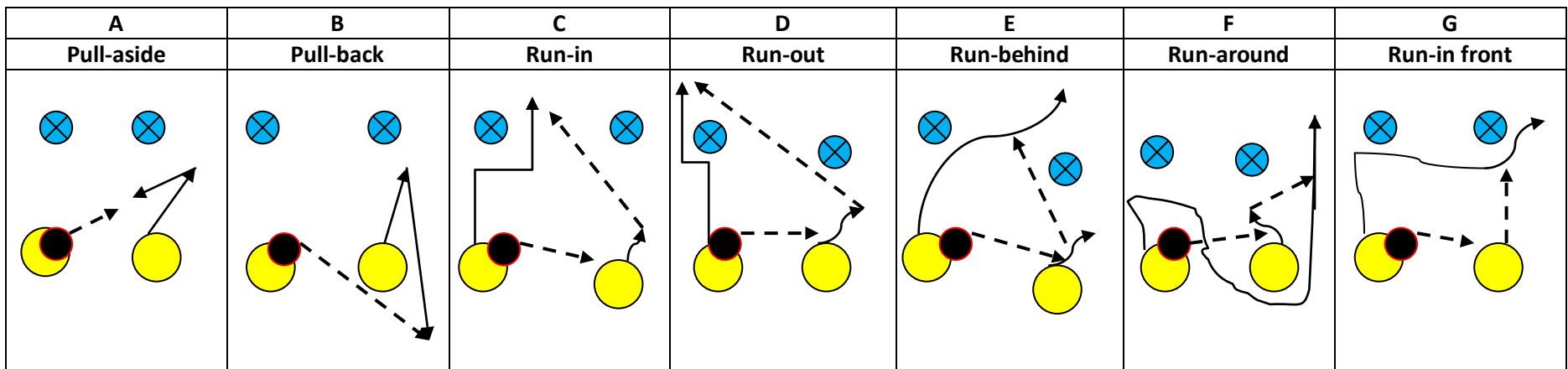


Table 5: Selected key characteristics of modern American handball player – Ideal Model

	Intellectual Composition	Technical Preparation	Tactical Preparation	Physical Preparation	Mental Preparation
Key features	<ul style="list-style-type: none"> ●Fast processing of information (verbal/non-verbal & visual) ●highly developed critical thinking skills (synthesis and analysis, drawing own conclusions) ●independence in making decisions and solving problems ● innovative and creative <p>●master of court wisdom</p>	<ul style="list-style-type: none"> ●widest possible range of individual offensive and defensive skills acquired at early stages of development to be coupled, at maturity, with highly adapted and/or modified and individualized technical arsenal ●capable of playing at least 2 positions ●capable of using effectively both hands for passing, faking & shooting ●ball felt as fully integrated part of the body <p>●master of adaptation</p>	<ul style="list-style-type: none"> ●highly proficient in playing aggressive extended defensive systems ●highly trained in solving offensive situations with open and closed endings <p>●master of improvisation</p>	<p>Well rounded but with superiority in:</p> <ul style="list-style-type: none"> ●power & explosiveness ●anaerobic endurance <p>●master of self-preservation</p>	<ul style="list-style-type: none"> ●perseverance ●coping well with stress and adverse circumstances ●"warrior", "assassin" "conqueror" attitude ●focus/re-focus skills ●unsurpassed self-efficacy, self-confidence, self-motivation ●risk taking (calculated) <p>●master of control</p>

In the works are the following supplemental tools that ought to become available for handball instructors, teachers, and coaches very soon:

- Short video clips of all technical and most tactical key concepts listed in Table 3 and Table 4
- Diagrams corresponding to principles listed in Table 3 and respective video clips
- Manual of best practices for coaching handball in the US with focus on youth
- Glossary of handball terms used
- Key to graphic symbols used in drawing diagrams
- Comprehensive list of references and suggested readings
- Video library of selected strength and conditioning exercises including demonstration of correct techniques and recommended methodological applications per age group
- Detailed information about format, testing, and standards for USA Team Handball Primary (U-14), Secondary (U16), and Ultimate (U-18) scouting program to be launched in 2012.