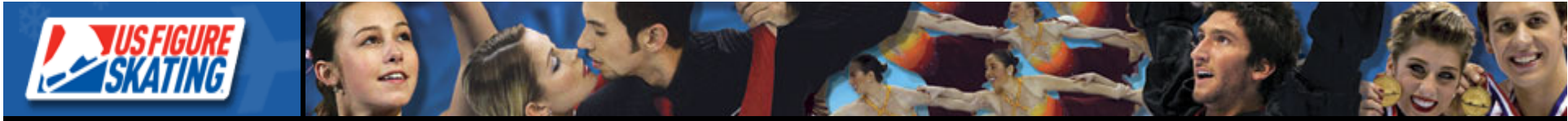


Integrated Performance Support: **How planning helps keep skaters healthy and injury-free.**

2008 PSA Conference
Chicago, IL May 23, 2008

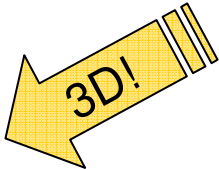
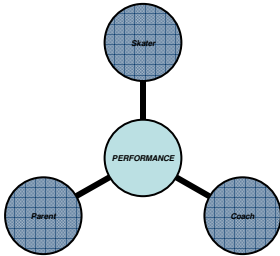
Charlene Boudreau
Director, Sports Science & Medicine, U.S. Figure Skating

“Bridging the Gaps” between the ART, SCIENCE and BUSINESS of coaching.



The concept of Performance Support Teams is not new.

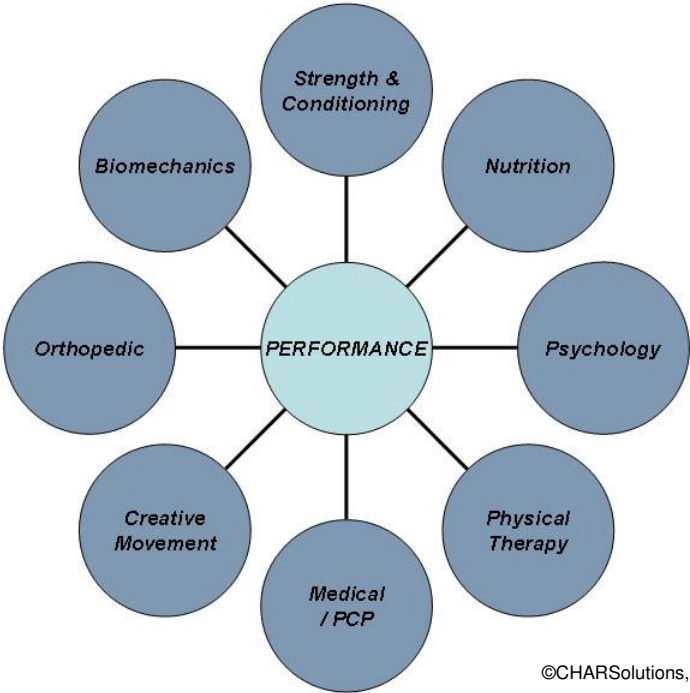
The Performance X-Pod:



The size of a team can vary with age and competitive development.

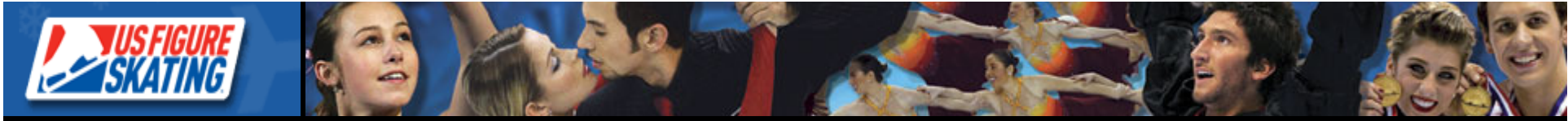
In a perfect world, every athlete would have his or her own personal, well-oiled team of support personnel.

Life would be simple.

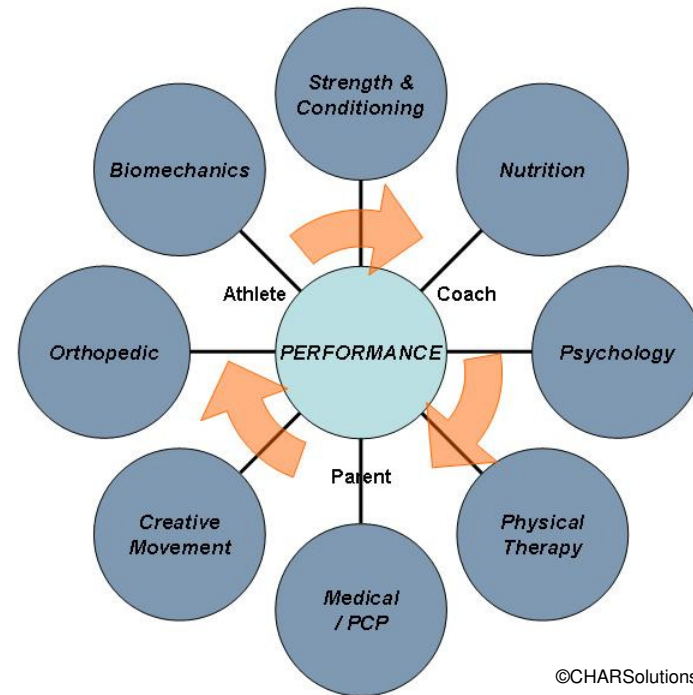


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The Performance 8-Pod



Even adding the original team to the mix seems manageable.

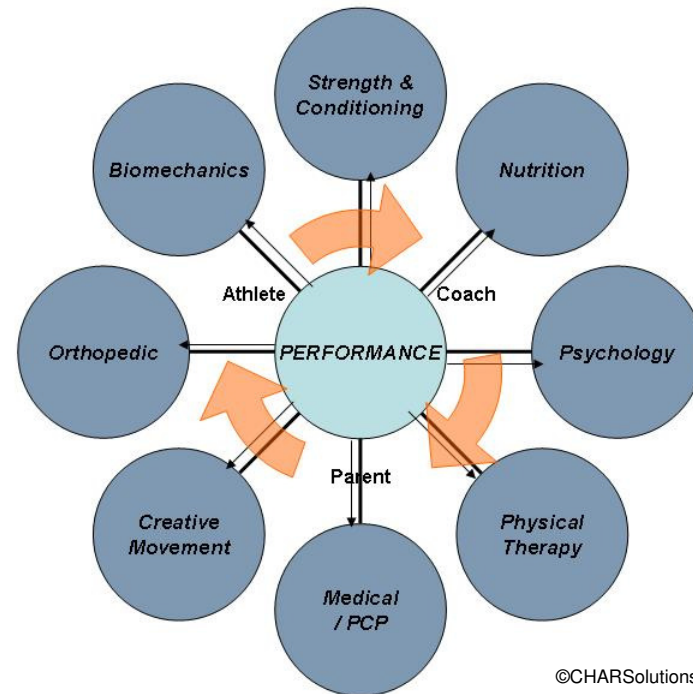


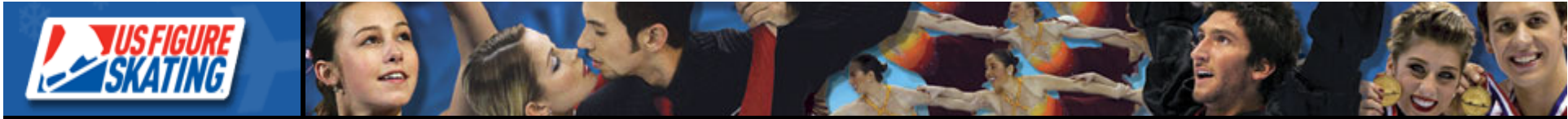


We are fortunate that such a variety of resources is readily available...*but...*

Who is communicating with whom?

Is “training” (volumes, workloads) being monitored?

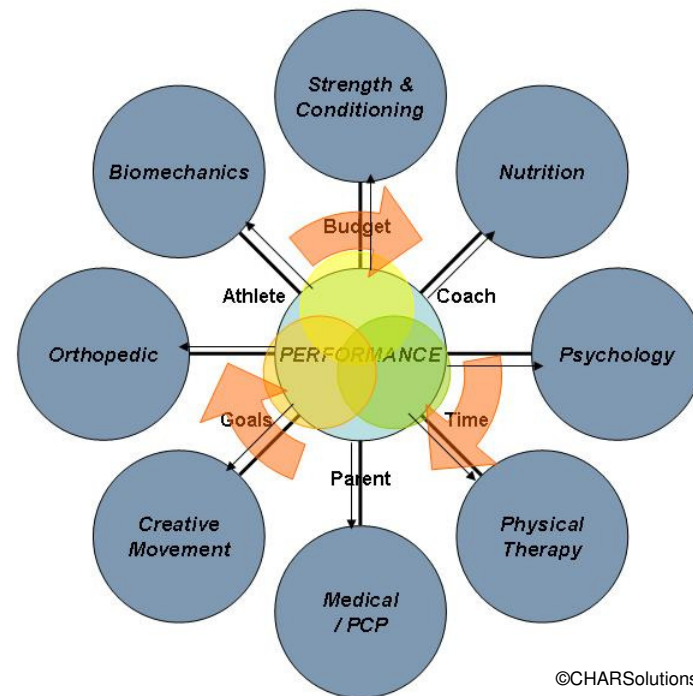




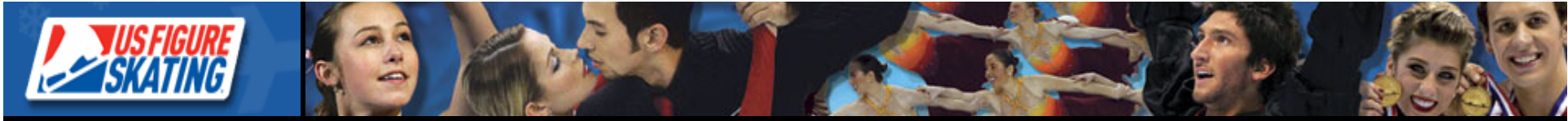
And do the realities of life muddy the water?

- time constraints
- budget limitations
- undefined plans
- uncommunicated plans

Our once-clear vision of **PERFORMANCE** can become obscured.



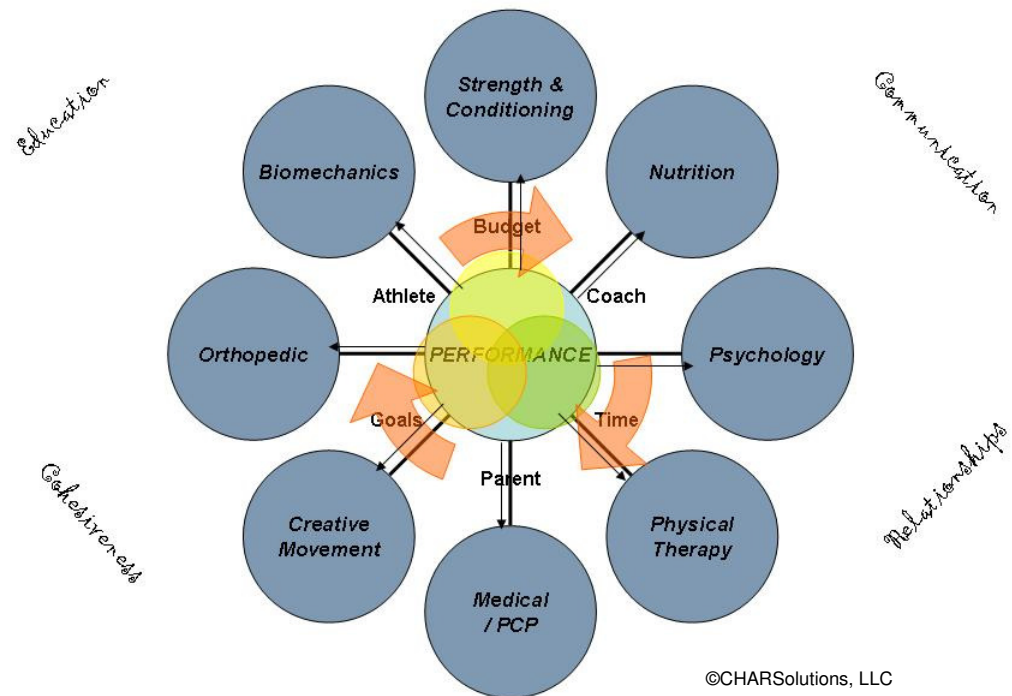
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In the real world, key components of an effective support system are easily overlooked.

It becomes complicated, unclear, overwhelming; Too time-consuming, too distracting; It's too much to handle and creates more problems than it solves.

While we're busy being busy, our athletes are at risk of becoming sick, injured and over-trained. We are vulnerable.



It's not our fault. But we need to SIMPLIFY.



Working with a support team doesn't have to be complicated.

But it begins with us...

As coaches, we are also leaders...

...and there is a *process* by which we raise our athletes' performance to the highest level.

“Success in competition should be the outcome of quality training, not chance or luck. It should be planned for and thus expected.”

~Anne Pankhurst, USTA Elite Player Development



Planning sounds boring.

It becomes complicated, unclear, overwhelming; Too time-consuming, too distracting; It's too much to handle and creates more problems than it solves.

But at what expense?

While we're busy being busy, our athletes are at risk of becoming sick, injured and over-trained.

Undefined and/or un-communicated plans can obscure a once-clear vision of **PERFORMANCE.**

Key components of an effective support system are overlooked:

- **Education**
- **Cohesiveness**
- **Communication**
- **Relationships**

Before we *apply* what planning *is...*

...We have to *believe* in what it *does*:

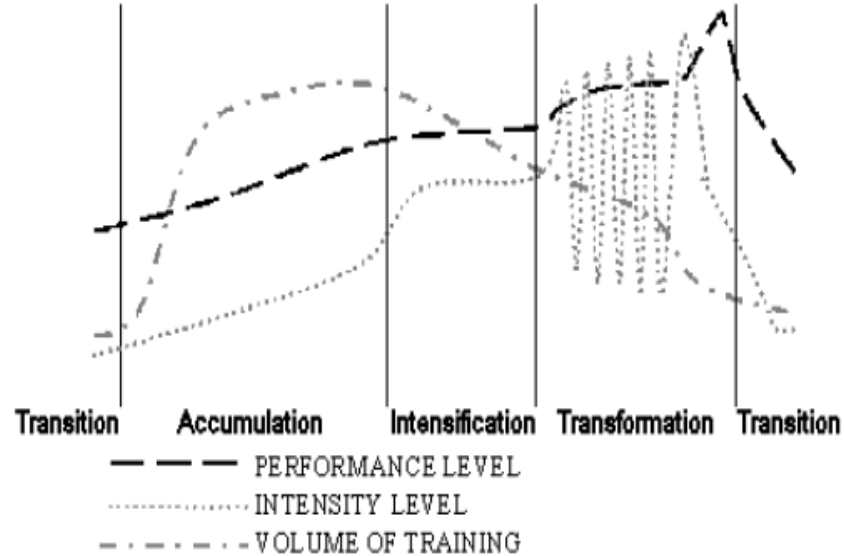
- **Education**
- **Cohesiveness**
- **Communication**
- **Relationships**

- **Cope with Demands**
- **Know Status**
- **Be Supported**
- **Stay Healthier (Longer)**
- **Reduce Chance of Injury**
- **Stay Mentally Fresh**
- **Recover**
- **Taper**
- **Perform Better**
- **Achieve Goals**



Principles of Conditioning

1. ***Overload***
2. ***Progression***
3. ***Adaptation***
4. ***Use/Disuse***
5. ***Specificity***
6. ***Individuality***



- ***Cope with Demands***
- ***Know Status***
- ***Be Supported***
- ***Stay Healthier (Longer)***
- ***Reduce Injury***
- ***Stay Mentally Fresh***
- ***Recover***
- ***Taper***
- ***Perform Better***
- ***Achieve Goals***



By doing this:

- ✓ Cycling intensity and training objectives.
- ✓ Prescribing training that is specific not only to your sport, but to your athlete's individual abilities (tolerance to training stress, recoverability, outside obligations, etc).
- ✓ Increasing training training loads over time (allowing some workouts to be less intense than others).
- ✓ Training often enough not only to keep a detraining effect from happening, but to also force an adaptation.

You are more likely to prevent this:

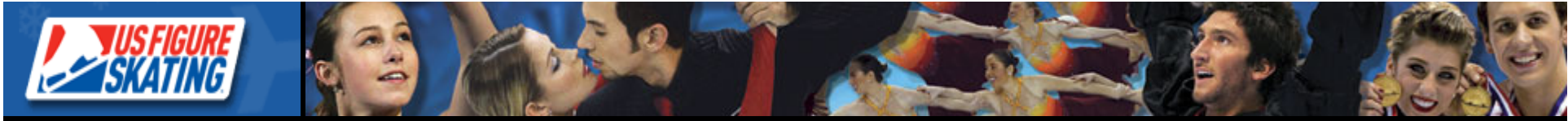
OVERTRAINING.

28%



Proportion of athletes at 1996 Summer Games who reported they had over-trained for the Games...and that this overtraining had a negative impact on their performance.

(Source: United States Olympic Committee)



Under-Training

Over-Loading

Over-Reaching

Over-Training

Negligible training adaptation
No performance improvement

Positive training adaptation
Minor performance improvement

Short-term (days)
Reversible with recovery
Optimal training adaptation
Optimal performance improvement
Necessary to improve performance at elite level

Long-term (weeks, months)
Irreversible with recovery
Negative training adaptation & signs of OTS
Performance suffers chronically
Competitive season is over





Glycogen Depletion?

Recovery, glycogen, carbohydrate

Immunosuppression?

Stress, cortisol, WBC, illness

Autonomic Nervous System Imbalance?

Involuntary homeostasis, sympa (accel), para (brake)

Central Fatigue?

Carbohydrate, BCAA, serotonin, sleepiness, lethargy, moodiness

Elevated Cytokines?

Stress, inflammation, ILs, CNS, adrenal, gonadal

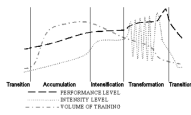


Enter:

“Integrated Support”



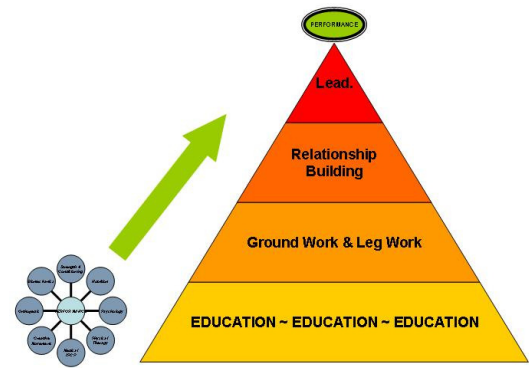
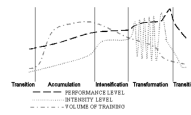
- Education
- Cohesiveness
- Communication
- Relationships



TRAINING~HEALTH~LIFESTYLE~ENVIRONMENT

Volume, intensity, recovery, taper, technique, competition, colds, fever, GI infection, menstrual dysfunction, sleep, daily schedule, nutrition, housing conditions, leisure activities, family, roommates, teammates, coach, job, school

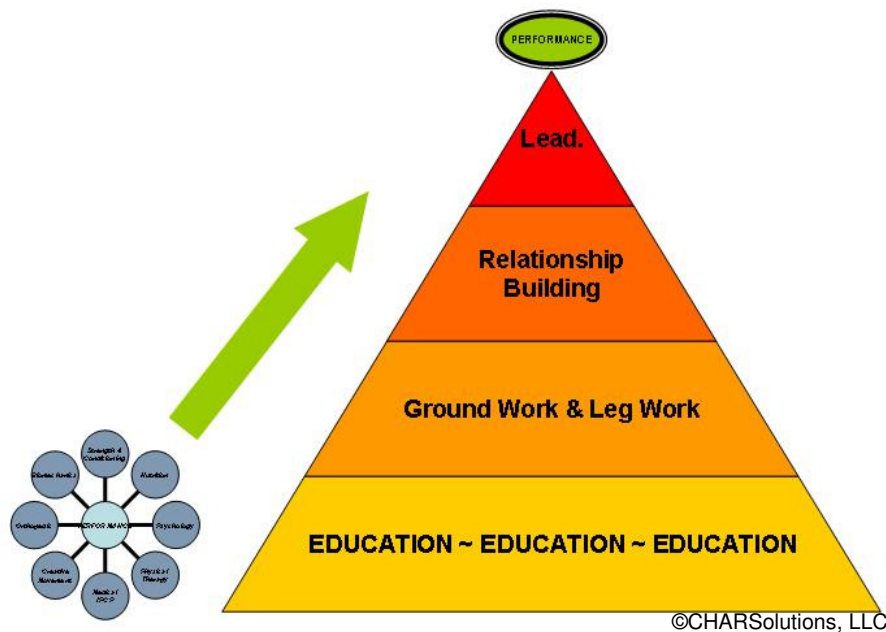
- Fitness
- Technique
- Nutrition
- Psychology





AVOID Over-Training and ENHANCE Performance

Develop a *cohesive, scientifically sound, professionally-supported* training **PLAN** that integrates and balances training, recovery, evaluation and monitoring.



Every successful business has a plan...

What's mine?



Performance Planning Pyramid

Encourage your team members to...

- communicate often amongst themselves to ensure appropriate volumes and workloads
- provide you with a regular cohesive “team” report
- notify you directly of any major events and their on-ice implications

PLAN to COMMUNICATE...

- your seasonal plan
- your business plan
- your role
- your support team’s role
- your expectations and goals

Invite members of the support team to provide regular seasonal group seminars to build familiarity and trust.

Help others recognize the difference between therapy and performance enhancement; Promote the latter.

PLAN to IDENTIFY...

- your goals
- your strengths and weaknesses
- your athletes’ strengths and weaknesses
- opportunities for improvement
- your resources (human & financial)
- athlete/parent resources
- your PLAN (where you want to go and how you intend to get there)

Continue to share your knowledge with your athletes and parents.

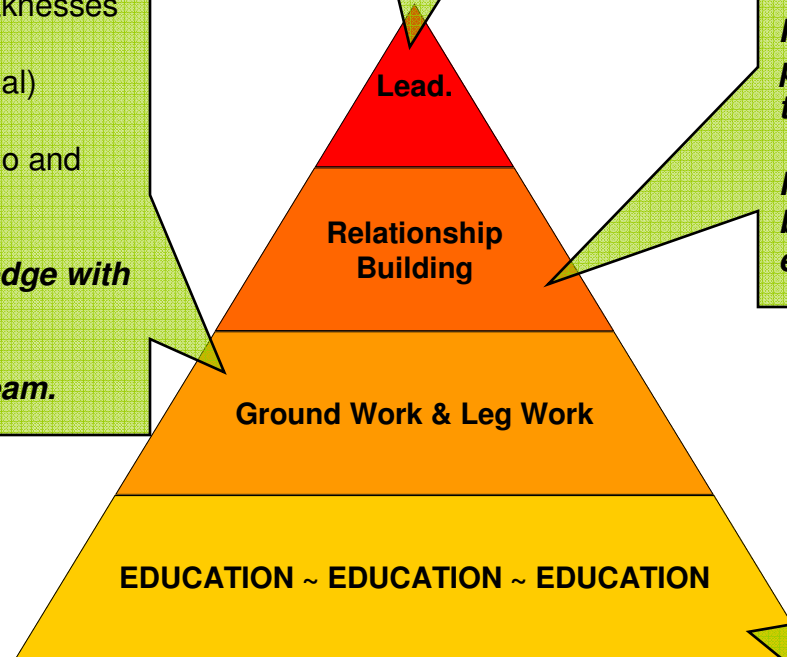
Add parents to your support team.

PLAN to UNDERSTAND...

- what you need
- what athletes need
- what you’re being told
- enough to provide guidance

Always understand WHY.

Share your knowledge with your athletes and parents.



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What’s my plan?



Network

The only way to develop the best network is to find the best people. Many times it's word of mouth, but take the time to do a little leg work on your own to get the ball into position and to get the ball rolling.

Talk with local practitioners to find out which ones might have experience with athletes, and better yet, experience with skaters. When you find one you're comfortable with, **ask for recommendations** from this person regarding people in some of the other fields.

Learn about the health care **businesses in your community**. Clinics and/or hospitals are often interested in sponsoring a program or donating supplies to support things like lactate testing or nutrition analysis.

Visit the Sports Medicine department of your **local college or university**. There may be an opportunity to work into their schedule, or contract out a few of their staff, depending on state laws and your own club situation.

Try the Sports Medicine and Science Network **searchable database** on the U.S. Figure Skating website to locate the names of a few professionals in your area.

Communicate

Encourage your support network to take a **team approach** to every problem. Oftentimes the best solution involves the combined effort of two or more disciplines. If the emphasis is unarguably in one area, it will still be beneficial for all members of the team to be kept apprised. Down the road, when their turn comes, it will benefit the athlete if the practitioner is familiar with the history.

Keep it Simple

At least to start, focus on finding professionals to support you in the **areas you need it most**. For example, if you're finding yourself in desperate need of someone to teach your skaters about nutrition, focus your efforts on finding a good nutritionist first, and worry about the massage therapist later. Once you find a good nutritionist, you can use this person's experience to help you find a good massage therapist, psychologist or physical therapist... whichever is most important to your program.

The best performance support team members are there when you need them and not when you don't, and they always seem to know the difference. They are not in it for personal gain and ALWAYS have the best interest of you and your athlete in mind.

Treat it Like a Business

It's a great feeling to find Sports Medicine professionals who love to be involved in skating as much as you do. But remember, it's all about business. They're providing services for your athletes according to your program philosophy and training strategy.

Develop **schedules and letters of agreement**, so both you and the service provider are clear on the expectations.

Document any **compensation discussions** (and be sure to let the parents know about this too, since typically that's where the money comes from).

Document **donation and sponsorship agreements**, including specific products, lengths of terms and conditions (i.e. "I'll give you this in exchange for that.").

Budget for **incentives** for volunteers. Keep in mind that the service provider has to make a living too. Many people are more than happy to volunteer their time to assist you with your training or treat a skater's injury, but it's nice to know that time is appreciated.

Keep all of this in a **safe place**. It doesn't have to be fancy... a simple file folder will do, but know where to go should you need to renew an agreement, find a phone number, quote a fee to parents, develop your budget for next year, etc.



“Success in competition should be the outcome of quality training, not chance or luck. It should be planned for and thus expected.”



***Believe in
what it does!***

“Bridging the Gaps” between the ART, SCIENCE and BUSINESS of coaching.

cboudreau@usfigureskating.org