



2010
Apprenticeship
Textbook

The Catalyst Apprenticeship Program

1. Summer 2010 Group Schedule
2. Responsibilities of the Apprentice
 - a. Rip and Read file
 - b. Weekly writing assignments
 - c. Reading assignments
 - d. Weekly group coaching
3. Apprenticeship Weekly Schedule
4. Gym Staff Handbook
5. CAT Testing Guide
6. CrossFit Level 1 Certification Guide
7. CrossFit Level 1 Training Guide
8. The Catalyst Eating Guide
9. Required Reading assignments

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Crossfit 7am	CrossFit 7am	CrossFit 7am	CrossFit 7am	CrossFit 7am	CrossFit 9am
Football 10:30a	Hockey 9am	Football 10:30a	Hockey 9am	CrossFit Noon	CrossFit Noon
	Hockey 10:30a	CrossFit noon	Hockey 10:30a	CrossFit 7pm	
CrossFit Noon	CrossFit Noon	Hockey 6pm	CrossFit Noon		
CrossFit 7pm	Skiers 6pm	CrossFit 7pm	STUDY GROUP 4pm – 6pm		
Barbell Bettys 7	CrossFit 7pm	CrossFit Kids 7p	CrossFit 7pm		
Running 5:30					
Frat Barbell 7	CrossFit Kids 7p	Running 5:30	CrossFit Kids 7pm		

Responsibilities of the Apprentice

This isn't a 24-hour rubber-stamp certification. There's going to be work required on your part. In order to cram 14 years' experience and education into a 12-week span, you're going to have to become as absorbent as possible. Before we begin, it's useful to discuss the concept of Beginners' Mind. In the fitness industry, you're frequently going to have to move with and around huge egos, and your OWN ego can be your biggest hurdle to gaining new knowledge. Beginners' Mind is a concept popularized through Taoism in which you approach a new situation as a rank novice. Pretending to have little experience in the topic at hand allows you to pick up subtle contextual references better, re-form your foundation, and learn more quickly. Take in as much information as possible, use what's relevant, and discard the rest. That's your motto for the summer; but first, you have to be willing to take in as much as possible. The simple act of telling yourself, "I'm a beginner" will help you store information quickly, and in a new light. Trust me, there are NO experts; the best in this field will be the first to admit that they don't know everything.

"I am the wisest man alive, for I know one thing, and that is that I know nothing."
– Socrates

While you're invited and encouraged to participate in CrossFit and sport-specific groups as often as physically possible to learn through immersion, you must participate in the Thursday-afternoon Group session and 3 hours' coaching time every week. These 3 hours are paid, and we'll work off an average (there won't be any hours in the first week, for example.) Coaching is done as an assistant to a Catalyst coach. While you may choose which groups you coach, in general only one Apprentice per group is necessary, and we'll decide who gets which groups on a first-come, first-choice basis.

On Thursdays, we'll start the group with a quick team warmup, and then move into a lecture lasting approximately 30 minutes. Then we'll do a team workout, and finish with a lecture by a Catalyst coach on the subject of coaching. As the summer progresses, the first lecture will be done by an Apprentice on a pre-assigned topic. If the only skill you gain this summer is better public speaking, the program is a success.

A broad overview (our rubric for the summer):

Qualification #1: operate a membership-based gym environment.

Timeline: Week #1

Participants will:

- ↑ Become familiar on the MindBody check-in system
- ↑ Learn how to track and balance cash flow
- ↑ Learn the names of members on a one-on-one basis
- ↑ Develop conversation points with 85% of Catalyst members
- ↑ Participate in operational duties, including equipment maintenance, cleaning, resupply, and setup/takedown for events.
- ↑ Learn to use wodomatic.com, and add new clients

- ↑ Write a client profile for use on the website, including interview and editing
- ↑ Undergo physical testing delivered by a Coach

Qualification #2: Train to Train

Timeline: Weeks #2 – finish

Participants will:

- ↑ Become proficient in the major lifts
- ↑ Be able to identify correct starting, midpoint, and finishing positions for major lifts
- ↑ Be able to identify and describe major lifts
- ↑ Develop a base work capacity
- ↑ Establish a base proficiency in CrossFit and weightlifting
- ↑ Track progress
- ↑ Study and compose summary essays
- ↑ Become proficient in the Catalyst progression system
- ↑ A-Coach in a minimum of 3 Catalyst hours per week, including Frat Barbell, Barbell Bettys, CrossFit, Teens, or other non-private groups. 3 hours will be paid; others will be volunteer time.

Qualification #3: Train to Coach

Timeline: Week 5-Finish

Participants will:

- ↑ Participate in weekly ‘coaching clinics’ led by a rotation of elite Catalyst coaches
- ↑ Coach daily CrossFit WODs to other Apprentices on a rotating basis
- ↑ Assist in coaching CrossFit Groups
- ↑ Assist in coaching Sport-specific groups
- ↑ Assist in coaching Teen groups
- ↑ Assist in coaching corporate groups
- ↑ Assist in writing personal training plans for special populations
- ↑ Assist in writing personal training plans for athletes
- ↑ Assist in writing personal training plans for general populations
- ↑ Be asked to explain and/or defend rationale for programming in Group meetings
- ↑ Write essays / create video explaining exercise movement
- ↑ Learn to implement the CAT Testing system

Qualification: Apprentice

Timeline: Weeks 8-10

Participants will:

- ↑ Deliver pre-approved training programs to corporate groups
- ↑ Lead, alone or assisted, Teen groups and sport-specific groups
- ↑ Practice delivery of the Catalyst tenets of training
- ↑ Research and program an athlete’s periodization schedule
- ↑ Undergo examination through essay and verbal testing
- ↑ Undergo physical testing delivered by a peer

In addition, students may be required to undertake extra study in any area, including speech, oral and written skills, or extracurricular activities to complete the course.

These will be undertaken at the student's expense and in a schedule set between student and teacher.

FEES and payment

Students will pay a registration fee of \$300 (plus GST.)

Students will receive services as listed above, plus:

- ↑ Membership for the duration of their apprenticeship
- ↑ Entry into all non-private Catalyst groups
- ↑ Some paid gym hours and the possibility of paid Coaching hours
- ↑ Consideration for staff hours during the Fall and Winter

Week One: Foundational Movements

Presentation: operating the gym facility

Movements: Squat – Press – Push Press – Push Jerk – Deadlift

Tabata Squats

Presentation: Introduction to the Catalyst Philosophy

Group Workout: 10-1 inverted pyramid of Push Jerk and Deadlift. One coaching, one lifting.

Handouts: Catalyst Philosophy, Apprenticeship manual, How to Win Friends and Influence People, by Dale Carnegie

Assignments: Diet books for review.

Enter the Zone:

Paleo for Athletes:

The Primal Blueprint: Charity Henson

Protein Power:

Precision Nutrition:

Week Two: Adherence

Presentation: 2006-2008 Adherence Study; Adherence v. Recruitment; wodomatic.com

Movements: KB Swing, Kipping, SDHP, Med Ball Clean

Presentation: Structuring Research

Group Workout: "NASCAR"

Handouts: CFJ Publication on our research

Assignments: choose summer study and make initial recommendations

Begin tracking on wodomatic.com

Week Three: OLY lifting

Presentation: The CNS and RFD

Movements: Clean, Split Jerk, Snatch

Presentation: The 'Core'; OLY and CrossFit

Group Workout: 5000lbs overhead

Handouts: OLY MiniClinic Guide

Assignments: Blog essay on one movement in the Catalyst progression system. Present the progression in video format as part of the descriptive essay.

Week Four: Gymnastics

Presentation: The CrossFit definition of 'Gymnastics,' CrossFit Planning outline

Movements: HSPU, knees – elbows, Muscle-Ups

Presentation: Anaerobic v. aerobic, the Valsalva manoeuvre, planning CrossFit workouts

Group Workout:

Handouts: CrossFit Level 1 text (included in package)

Assignments: Weekly blog essay on one Gymnastics movement – its value, its function in CrossFit and athletic training, and a video demonstration

Write a Saturday CF WOD

Week Five: Athletic Training

Presentation: Linear v. Conjugate periodization (Westside); CAT Testing

Movements: Speed Squat, Speed Bench, GHR, Reverse Hyper

Presentation: Accommodating Resistance, Posterior Chain

Group Workout: Speed Squat w/ bands, Speed Bench w/ bands, 3-board press to max

Handouts: Dave Tate's Periodization Bible, parts I and II

Assignments: perform the entire CAT Test on another Apprentice or gym member.

Week Six: Special Populations

Presentation: Autism; MS; Seniors; Type I diabetes research

Movements: Sprints and OHS

Presentation: Seated Exercise – Lisa Ericsson - Siff

Group Workout: Seated CrossFit

Handouts: CrossFit Journal publications, Peters' research thus far

Assignments: Write training programs for an autistic teen, a newly-diagnosed MS victim; a Seniors' Group training session; and a Type I diabetes teen.

Week Seven: Head Trainer Mike Watson, BHK CSCS

Presentation: Charity Henson – Primal Blueprint

Movements: POSE Running

Presentation: Mike on Coaching

Group Workout: 5k run

Handouts: CrossFit Endurance; Mike's Beginner Run Group handouts

Assignments: Blog essays

Week Eight: Tyler Belanger

Presentation: Josh Deluco - nutrition

Movements: Sport-specific training for athletes

Presentation: Tyler Belanger on Training

Group Workout: CFFB

Handouts: CrossFit Football Training Guide

Assignments:

Week Nine: Whitney Pagnucco on Training

Presentation: Taylor Corelli - nutrition

Movements: Kids' coaching progressions

Presentation: Whitney Pagnucco on Training

Group Workout: CF Kids

Handouts: CF Kids magazine

Assignments: Write Catalyst Kids' weekly programs

Week Ten: Chris Cooper on Training

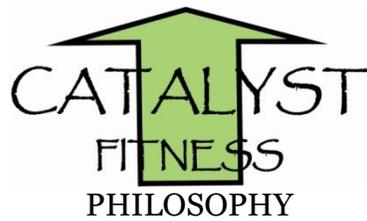
Presentation: Odane Ferguson on Nutrition

10-minute presentations on summer project

Presentation: "Cowboys v. Shepherds" – coaching by Coop

Handouts: Dontbuyads.com articles

Assignments: Turn in summer research for debate



We've been very lucky. While other fitness centres have shut down before their first year is over, we thrive. This is all due to our staff, who uphold our philosophy: We believe in fun. We believe that, to be effective in a long-term sense, exercise has to be enjoyable. It has to be creative.

We are the segue into a more healthy, active life. That responsibility means introducing clients to new activities, making them comfortable with working out in any environment, and giving them attributes they can display with pride.

We believe in hard work. Our own hard work will be recognized by our clients and friends, and will encourage them to work harder in the face of challenge. We believe in multi-joint exercise using body weight or free weights. We believe exercise can happen anywhere, at any time. We train movements, not muscles.

We believe in the long haul. Continual progress is necessary for self-actualization; if you're not moving ahead, you're falling behind. We set milestones and celebrate when they're reached. And then we reach further.

We don't take ourselves too seriously. We're comfortable in our skills, and can joke about our weaknesses. It's always easier when you're the best!

We believe that it's just as important to train for a canoe trip as a triathlon. Proper, smart preparedness increases the satisfaction derived from any activity, including mental preparation.

We believe in science. We believe in ongoing education. We're committed to the peer review process, the application of cutting-edge science, the debunking of myths, and the benefits of active debate and discussion.



Above all, we believe in ourselves and our clients!

GYM STAFF HANDBOOK

498 Queen St. East (2nd Floor) Sault Ste. Marie, Ontario P6A 1X8 (705)253-0011
WWW.CATALYSTFITNESS.CA

Welcome to Team Catalyst! If you've made it this far, be proud; you've clearly established yourself as an outstanding member of the Fitness community.

At Catalyst, there are only a few simple rules of conduct, most of which are common sense; others will help you improve your relationship with clientele, other staff, and the outside world at large. Some, whose purpose may not be obvious at first, will reveal their own benefits as you become more accustomed to the atmosphere of a highly-charged, fast-paced exercise environment.

On page two, you'll see how we operate. You'll be given in-depth detail about each rule as you go along. These are simple (but essential) things that separate Catalyst Fitness from the rest of the herd; they're not day-to-day maintenance, but rather insurance of a positive attitude and environment for clients, guests, and staff. This stuff is not hard, though it will require some practice.

On page three, you'll see the more mundane (but absolutely necessary) everyday rules of operation for Catalyst Fitness facilities and staff. They're simple, and easy to remember if you practice them daily. Miss one, though, or become routinely sloppy with them, and it hurts the entire atmosphere for everyone.

You'll be given an employee review after your first month, your third month, and then semiannually from that point onward. There's a blank review attached, as well as some personal goal-setting sheets that you'll go through as part of your orientation process.

As you'll see in our philosophy, Catalyst isn't a facility; it's a team approach to fitness, exercise, mobility, and health. We're very lucky to have the best Trainers, Nutritionists, Massage Therapists, and Physical Therapists available in Northern Ontario. Our network outside the physical facility includes a solid relationship with all chiropractors, physiotherapy clinics, doctors, and other health professionals;

work
hard to maintain and groom that relationship!

A Brief History of Everything

We have dozens of little quirks here at Catalyst; some of them, you may find challenging; some of them, you may wonder at their logic. However, rest assured that every single policy and idea in this book has been formed through extensive research, trial and error, and (often) painful experience.

Personal training is a flat market. That means that, despite all our research, study, long hours and hard work, the client really only differentiates personal trainers according to one solitary factor: their relationship with the trainer. That's right: regardless of client progress, regardless of results gained from the training, or experience of the trainer, client retention is 90% dependent on the relationship of the trainer with the client.

It may be tough to remember to turn on the stereo system in the morning. You may struggle to remember to pick up your client's empty water cup after several hours of training in a row. You may not want to write a nice postcard to the client you just met at 5pm on Friday afternoon. You probably won't feel like running to retrieve a dumbbell for a client. But the client will never remember the last study you quoted her; she'll remember you running to retrieve a dumbbell so she doesn't have to stare at the walls while you're moseying from room to room.

These lessons have been hard-won. But without them, to the client at least, we're just like everyone else.

No matter what else happens, we will never be outworked. Never will a client leave Catalyst for a competitor because we're too lazy: this, above all, is the original sin.

New Team members – benefits and responsibilities

1. You will be provided with appropriate Catalyst clothing – for Apprentices, this means:
 - a) 2 Catalyst T-shirts
 - b) 1 Catalyst hat

Trainers and other Team members are free to purchase more Catalyst clothing at wholesale cost plus taxes at any time, and without restriction. As a Team member, you are absolutely required, without exception, to meet Catalyst's dress code requirements whenever leading a Catalyst group, training a client, at the front desk, or otherwise performing Catalyst duties, including public speaking. If you arrive for work without your uniform, you are **REQUIRED** to purchase clothing suitable for your duties that day.

2. You will be provided with a comprehensive guide for your performance (this guide.) You will be asked to initial the form at the end of this guide to acknowledge that you've read and you understand everything within. As soon as you initial that form, you're responsible for upholding the contents of this book 100%.
3. You will have access to all Catalyst Team members at the lowest cost possible – the Team member's invoice rate. When a Team member takes their time to provide you with a professional service, they deserve the same compensation they would receive from a client. However, Catalyst doesn't have to make its share; we believe the long-term benefit of your health and exposure to other Team members is enough. One note: please book appointments with other Team members at a time when they're not normally busy to avoid inconveniencing Catalyst clients.

4. You have a responsibility to Catalyst and its clients to act in their best interests at all times. Catalyst has a responsibility to all Team members to act in the best interests of the group, to ensure that all continue to thrive. Opening the Facility – First One In

1. Start Computer
2. Check that the facility is clean, including bathrooms
3. Find the daily WOD and post it on the chalkboard
4. Open at 6am (8am Sundays) on time.
5. Check the schedule for the day on MindBodyOnline.

Closing the Facility – Last One Out

1. Pick up all cups and towels, even if they weren't yours.
2. Ensure all plates are stacked and dumbbells on appropriate racks.
3. Turn off radio.
4. Turn off all lights, including washrooms, hallways, and offices.
5. Lock all doors and windows.
6. Pack computer away properly.
7. Close batch on debit terminal.
8. Lock office doors and entranceway doors.

How to Train a Client

Training a client successfully is much more than just showing up on time, smiling, and beating them into a sweaty pile. Workouts have to be planned in advance and follow a logical progression.

There are 5 steps to client training at Catalyst:

1. Book the client's appointment
2. Write the program
3. Implement the program (with the client)
4. Receive payment
5. Make sure the client's next visit is booked.

Answering the Phone

1. Smile on the phone.
2. Answer with, "Good morning (or afternoon), Catalyst Fitness, Chris speaking."
3. As soon as the caller identifies themselves, use their first name as you speak.
4. When passing on the telephone to another staff member, make sure you're able to identify the caller and/or reason for calling.

Taking Phone Messages

Live

1. Record clearly the person's first and last names – use MindBody to make sure the message gets through.
2. Record their phone number.
3. Read the phone number back to the person.
4. Write the time of their call beside their name on the whiteboard.
5. Notify the recipient as soon as they're available.

Recorded

1. Record clearly the person's first and last names in MindBody.
2. Record the phone number in MindBody.
3. Briefly paraphrase the reason for the call.
4. Notify the recipient as soon as they're available.

Taking Cancellations

1. If before 8am, ask the client if they'd like to reschedule right then.
2. If after 8am, politely remind the client of the cancellation policy.
3. Ask the client if they'd like to rebook at that time.
4. Process the cancellation in the calendar of the staff member.
5. If the cancellation is the first client of the day for a staff member, or the first after a long break, notify the staff member via phone if possible.

Responding to phone messages

1. Call back within 4 hours of receipt of the call.
2. Leave a message noting the time of your call if the person is unavailable.

Booking Appointments

1. First, book the appointment using the online calendar (MindBodyOnline.com.)
 - a) If the client is new, fill out ALL fields in the questionnaire, including email address, phone, and birthday.

Booking Appointments Online

1. Go to MindBodyOnline (there will be a shortcut on the desktop.)
2. Select the staff member from the 'personal training' section.
3. Select the length of the massage/workout/therapy.
4. Offer the caller some options for time slots as they appear.
5. Click on the spot to book it for the appropriate time frame. Go through the questionnaire with the person on the phone, asking for an email address for confirmation purposes, and a callback number.
6. Read the summary of their booking, including location, to the client before pressing 'Confirm.'
7. Confirm the transaction, and tell the customer they'll receive confirmation via email. Let them know that they're free to book online by visiting our website (www.catalystfitness.ca) and clicking on "Book Now!" They may also change their appointment over the phone, or the online booking service.
8. When the confirmation appears in the Catalyst Email Inbox, forward it to the appropriate person's folder on the left side.

Booking Consultations

A consultation is for first-time clients or clients who have been away from the Catalyst facility for more than 3 months.

1. Schedule an appointment with the Case Manager:
Go to MindBodyOnline.com.
2. Select 'Free First-Time Goal-Setting Session.'
3. Choose an appropriate and convenient time for the client to meet Mike or Chris. Make sure the client knows the location to meet (downtown or the Park.)
4. Complete the information section: name spelled correctly, phone number, and email address.
5. Confirm the appointment by repeating the information back to the client.

Checking Clients In

At the Industrial Park gym, clients must be 'checked in' every time they enter for insurance purposes. On the 'Check In' tab in MindBodyOnline, type the person's last name (you may need to select them from the list.)

If the client's membership is valid, the screen will turn GREEN. If the screen doesn't turn green or show a small 'M' in a red circle next to their name, their membership has expired.

***It will be common for folks whose membership has expired to ask if they can 'just pay next time.' Unfortunately, while they're our guest, we're still covering gym overhead AND insuring them. This means we're paying whether they are or not. For that reason, if they want to enter with an expired membership, they're required to pay the drop-in rate. This is easily handled in a friendly, non-confrontational way: invite the client to

use our PAD system, which is cheaper for them and they'll NEVER be faced with the same hassles.***

Cancelling Appointment – Trainers and Therapists

1. Discuss the case with the Head Trainer, Case Manager, or General Manager.
2. Except in an emergency, appointments with clients must be cancelled at least 72 hours before they are to occur. **YOU ARE REQUIRED TO PROVIDE YOUR CLIENTS WITH AS MUCH NOTICE AS POSSIBLE.** Clients cancelled with less than 72 hours' notice are to be placed with another Trainer at their same appointed time slot. After that appointment, the next appointment (and choice of Trainer) is completely at the client's discretion.
3. Before making contact with the client, ensure that a few alternatives are available on your schedule. If there are none, coordinate with the Head Trainer and other Personal Trainers to find a replacement before contacting the client.
4. Apologize for the mistake, and then suggest alternatives without delay.
5. Remove the client from the booking system. Failure to do so undermines our booking policies and makes us appear unprofessional.
6. Prepare, in full detail, workout programs and all other relevant materials for the client.
7. Take the replacement Trainer through the workout. The delivery of the program, and the full understanding of the client, is still the responsibility of the trainer cancelling the program; make sure your replacement is 100% clear on instructions!
8. On the next appointment with the client, apologize again and ask if they were satisfied with the replacement and/or schedule change.

Cancelling Appointments – EMERGENCY SITUATIONS

1. Notify the Head Trainer or Case Manager as early as possible.
2. Call the clients personally, or make sure that the Head Trainer or Case Manager is prepared to do so. Provide names and phone numbers.
3. If time permits, print out the last workout given to the client, and suggest updates to the Trainer taking your spot.
4. On the next appointment with the client, apologize again and ask if they were satisfied with the replacement and/or schedule changes.

Cancelling Appointments – Client

1. It is Catalyst's policy that cancellations must be made by 8am on the day of the appointment, or are subject to full billing. This must be made clear at the time of the initial consultation.
2. Mistakes happen. At the Head Trainer's discretion, clients may be issued a warning the first time they cancel late. Sample script: "Thanks for the call. I won't charge you for the session since this is the first time you've cancelled, but I'd like to remind you that our policy IS to charge full rate for sessions cancelled after 8am. Please call before 8am next time to avoid a charge."
3. In some serious situations, the Head Trainer may waive the fee (drastic circumstances, not including personal illness.)

Background on cancellation policy:

Most Personal Training facilities operate on a 24-hour no-cancellation policy, and rigidly enforce it. Their argument is that the client OWNS the time slot, and therefore it's their responsibility to arrive on time (or at all.) We realize that, to maintain a positive, humanistic relationship with clients, we need to be flexible; hence the 8am cancellation policy.

Essentially, by 8am, if you're sick, you'll know it. If your child is staying home sick, you'll know it by 8am (but you may not know it the night before!) If you're snowed under, you'll know it by 8am, etc.

Performing Consultations (Case Manager)

1. Be ready 10 minutes before the consultation is to begin.
2. Greet the client at the door, and invite them into the office area.
3. Start with the client's background and goals; listen patiently, asking prompting questions, until the client is absolutely finished.
4. Clearly delineate goals on the client's intake form; make thorough notes.
5. Segue into the 'Health History' Questionnaire and personal inventory sheets.
6. Offer the client a tour before suggesting possible paths to achieve success.
7. Present the client with various options to help them succeed.
 - a) personal training
 - b) gym membership
 - c) nutritionist/physiotherapist
 - d) Morning Catalyst.com
 - e) groups
8. Complete the 'suggested options' checklist.
9. Book the client an appointment with the appropriate trainer to complete their physical assessment (see: booking appointments.)
10. Immediately following the departure of the client, fill out and mail a Welcome postcard (eg "You're On Your Way Up!") personalized with a message from the trainer to the client. Check the top right-hand corner of the 'Health History Form' when this has been completed.
11. Create a file comprising:
 - a) health history/personal inventory
 - b) goals sheet
 - c) suggested options checklist
 - d) other client data

First Visit:

1. Testing – CAT Testing – see guide.

Non-Competition

By contract, you are required not to compete with Catalyst while under contract. As a general rule, you may NOT provide any service to anyone, paid or unpaid, for which Catalyst would normally charge a rate.

This includes:

1. Workout programs
2. Diets
3. In-depth advice
4. Advice transcribed to paper
5. Copies of programs issued to other clients
6. Training to groups
7. Public speaking in a non-Catalyst role; engagements should first be vetted by the Case Manager.

There are several reasons why providing services outside Catalyst is a poor idea:

1. You're not insured.
2. You have no recourse for collecting payment.
3. Your income is subject to audit.
4. Once you start, you can't stop.
5. You have no recourse for late cancellations.
6. Bad feelings between Trainer and client.
7. Unprofessional relationship between Trainer and client.

Checking and Responding to Email

1. If you're using the computer, check the catalystfit@gmail.com email account every hour (minimum).
2. Respond to every email using the catalystfit@gmail.com email account. DO NOT use your own account to communicate with clients or other staff members for anything to do with Catalyst. This way, you have a tracking system for all your communications in case of dispute.
3. If you read an email intended for another trainer, flag the email for follow-up using the 'Flag Message' option at the top of the email text.
 - a) Write a note for the trainer on their section of whiteboard.
4. Respond to emails immediately; do NOT procrastinate. If you lack information, flag the message for follow-up and find the information as quickly as possible.
 - a) Respond to your own email within 3 hours of receipt. If necessary, respond that you are waiting on information before providing a full response. However, send an email acknowledging receipt of the client's email.

STAFF PURCHASES

Staff are entitled to purchase goods and services at Catalyst's cost. That includes services from other Team members, as applicable.

SUPPLEMENTS

Staff may purchase supplements at wholesale cost. The staff member should inquire from the General Manager before purchase.

Purchase of supplements are subject to GST and PST. However, purchases of supplements by staff members count toward applicable revenue targets.

CLOTHING

Catalyst Team members are supplied with clothing, as determined by position. However, if they wish to purchase additional clothing for variety (and to avoid laundry), they may do so at Catalyst's costs. Those costs are:

1. Collared shirts for Trainers - \$29
2. T-Shirts - \$15
3. Hats - \$8

Both are subject to GST and PST. They MUST be entered into Simply Accounting at time of purchase, though they may be placed on account. They may also count toward revenue targets, as applicable.

STAFF-STAFF SERVICES

Being fit and athletic, Trainers and other staff may occasionally require the services of the Team Massage Therapist or Physiotherapist or Nutritionist, or another Team member. Catalyst highly recommends periodically training with other Trainers (outside of Study Group) to continually progress in your Training skills. Since we all benefit indirectly, Catalyst requires only that the Team member using the service pay the Team member providing the service at their own session rate. For instance, when using the services of another Contractor, the Team member would pay the normal rate paid by Catalyst to that contractor. When using the services of a Team member who's leasing space from Catalyst, their normal rates apply, as do GST and PST.

Any transactions are to be handled between Team members. If the Catalyst debit machine is used, then the full Catalyst rate is to be charged, plus any applicable taxes. Examples: Mary wants to get Physio from Bill, the Team physiotherapist. Normally, Catalyst would charge \$45 for this service, and Bill would invoice Catalyst \$25. In this case, Mary would pay Bill \$25 in cash or cheque. If Mary uses the Catalyst debit machine, the full \$45 rate applies (plus GST).

Another example: Bill wants to use Mary's Massage Therapist skills to relieve lower back tightness. Since Mary is not a subcontractor but a lessee, her full rate applies, plus taxes. Bill may pay in any method he chooses. USING MINDBODYONLINE.COM FOR BOOKING AND BILLING

See Appendix A

CAT TESTING

See Appendix B

Performing a One-On-One Personal Training Session

1. Before the session begins, make sure your work area is ready:
 - a) weights required are available in your space;
 - b) your space is tidy;
 - c) water is available to the client.
 - d) Coordinate workout space needed with other trainers.
2. Be ready to greet the client 15 minutes before the scheduled start time, unless catering to another client immediately beforehand.
3. Administer a brief warmup. During the warmup period:
 - a) maintain a friendly banter;
 - b) get water, towel, and program for client;
 - c) if necessary, check phone messages on whiteboard.
4. Administer program.
5. Stretch and review program with client as necessary.
6. With 2 minutes remaining in the hour, finish the workout and begin tidying the space to make sure it's ready for the next trainer/client:
 - a) sweep up chalk;
 - b) remove all water cups and towels;
 - c) return plates, bars, and dumbbells to proper space;
 - d) move belts and bands to the correct space.
 - e) Mop up sweat.
7. Greet the next client and begin their warmup.

Performing a Group Training Session

1. Before the session begins, make sure your work area is ready:
 - a. weights required are available in your space;
 - b. your space is tidy;
 - c. water is available to the group.;
 - d. Coordinate workout space needed with other trainers.
2. Administer a brief warmup. During the warmup period:
 - a. maintain a friendly banter;
 - b. get water, towel, and program for group.
3. Administer program.
4. Stretch and review program with group as necessary.
5. With 2 minutes remaining in the hour, finish the workout and begin tidying the space to make sure it's ready for the next trainer/client:
 - a. sweep up chalk;
 - b. remove all water cups and towels;
 - c. return ALL plates, bars, and dumbbells to proper space;
 - d. move belts and bands to the correct space.
 - e. Mop up sweat.
6. Greet the next client and begin their warmup.

Writing A Training Program

1. Familiarize yourself with the client. Establish 'Point A', using the client's historical workouts, periodization plan, or physical assessment, depending on how new the client is.
2. Establish the timeframe for which the program is to be utilized. As a rule of thumb, consider the performance criteria a client should be able to meet at the end of the program you are about to write.
3. Work backward from the short-term criteria you expect the client to meet as a result of this mesocycle. Which exercises will get them there?
4. Consider like clients in similar stages of progress.
5. Tailor for individual needs first, and then:
6. Tailor for individual preferences.

THE CRITICAL LIST

These logical rules are what makes Catalyst different from every gym, personal training facility, and other fitness facility around. These rules are really what make us successful, and are a big part of the reason we're constantly growing while many others in our field falter.

1. Do What You Say You Will Do.
2. 10-foot rule.
3. When retrieving something, run.
4. Don't present a problem without a proposed solution.
5. Call Back within 4 Hours.
6. The Answer is Always Yes.
7. Carry In, Carry Out.
8. Back Office appropriate behaviour
9. Front Office appropriate behaviour
10. Cleaning Schedule
11. Booking Consultations
12. Simply Accounting
13. Group Signup Procedure
14. Selling Tshirts and Supplements
15. Garbage locations and responsibilities
16. Smile on the phone.
17. See it from the client's perspective first.
18. If you can't put forth your best effort, don't do it.
19. Create an environment.

THE ESSENTIAL LIST

These things are rules that should be automatic, but may be hard to remember during a busy period. Nevertheless, they are just as important Saturday night as Monday morning. While clients will never complain about any of the things below, they are a huge part of a potential client's decision to return, and also affect your relationship with other staff and the Management Team.

1. Keep your area clean. Replace all equipment at the end of a session. Place cups, towels, etc. in the proper location. At the end of the day, the facility should be 100% ready for the first client of the next day.
2. Do your accounting entries before you leave for the day. This will help avoid confusion (and cost) at bookkeeping time.
3. After every consultation, fill out a *'You're On Your Way Up!'* postcard, and mail it **THAT DAY.**
4. At the start of your shift:
 - a. Turn on all lights.
 - b. Turn on sound system.
 - c. Turn on promotional DVD in TV.
5. At the end of your shift:
 - a. Close the batch.
 - b. Turn off lights.
 - c. Turn off (or down) air exchange system.
 - d. Set alarm.
 - e. Take your lunch and workout gear with you.
 - f. Lock ALL doors.

Staff Evaluation Procedures

Staff evaluations will take place after the first month, the third month, and quarterly during the first year. After the first year, the contract should be reviewed with the contractor a minimum of every 6 months, even if there aren't any issues that are unsatisfactory. Evaluations will be made point-by-point, according to contract. A sample evaluation (contract review) is below.

Contract Review

Contract Terms with Evaluation of Contractor Performance

1. Scout, enrol clients, prepare and implement individualized training strategies for them.
2. Scope, prepare and execute group-training sessions within or outside Catalyst's training premises based on market demands for group training.
3. Invoice clients, collect monies and write receipts to clients.
4. Assist in the booking of clients by answering phone calls coming to Catalyst's phone line, including messages coming by fax.
5. Assist in maintaining, cleaning, and re-supplying consumables for the facility.
6. Attend bi-monthly sessions for the review of each client's case with the President. Such sessions will not receive direct or indirect compensation.

Catalyst Standards of Care and Behaviour with Evaluation of Contractor Performance

1. Catalyst expects you to arrive on location for training sessions and be ready for it at least 15 minutes before the scheduled time of any session. In the case of consecutive sessions we expect you to commence the session absolutely on time for the second session.
2. Unless in case of emergencies, no cell phone conversation, phone conversation, visit by friends or chitchats with third parties are allowed during a training session or around a client.
3. All training protocols should be laid out at least 15 minutes prior to a session.

4. If a client arrives to a session prior to the scheduled appointment is ready and you are free, your responsibility is to begin the session before the scheduled time for the period of one hour or half an hour, whichever is agreed.
5. Catalyst expects you not to make public or private statements, remarks, gestures or engage in any form of behaviour that may offend or antagonize anyone associated with Catalyst.
6. If you must cancel a session because of illness or force major, you must first contact Catalyst as quickly as possible to give Catalyst sufficient time to find a substitute trainer or cancel the training session, depending on the client's wishes.
- 7.
8. You will endeavour to keep the facilities and equipment clean after usage.
9. You must maintain a dress code such as directed by the president.
10. You must process all communications with clients, other staff members, and the public at large through official Catalyst channels, including email, phone, and fax.

Comments by Supervisor:

Comments by contractor:

GROUPS

Group rates are determined by staff involvement, facility usage, equipment needed, and demand.

Staff are required to work out with a group to increase its potency. For instance, while it may be necessary to look around often during a Crunch Camp, it's necessary to demonstrate and perform exercises as an example to group members.

On running groups, bench groups, Strongman groups, Pilates groups, and cycling groups, staff must be able to provide guidance while performing the same activity as the group. In sport-specific groups, such as swimming and golf, the instructor need not be proficient in the sport to correctly prescribe and demonstrate exercises necessary for improvement. Of course, if Tiger Woods is available, he'll come in and coach for you.

Group signup sheets are in a grey binder, kept at the front desk. Rates, instructors, etc. are included on the signup sheets. Include as much information as possible about the client, including callback number. Clients don't have to pay until the first day of the group, and they may download a printable waiver from www.catalystfitness.ca under the 'downloads' section to fill out in advance to save time. All prices are subject to GST. If they've attended other groups here before, they don't need to fill out a new waiver.

If a group appears full, offer to check with the instructor to ensure the attendee will have a spot. Don't turn down any potential attendee without checking with the group instructor first! Sign the client up, and offer to call back if the group is full. If that's the case, put the client on a waiting list for the first available group, and remind them that there are new groups opening all the time because of high demand.

When coaching a group, you're bound to have early and late arrivals. Make sure your area is clean and set up properly at least 10 minutes beforehand. When a client arrives on time, the group should be 100% ready to go. If they arrive early, they shouldn't have to wait long; if they arrive late, they should find their place ready and waiting.

Missed sessions: if a client misses the first session of a group, they may pay the second week at a prorated discount. However, missed sessions during the course of the group program will not be refunded or carried over to the next group. There will be no makeup groups. If a client knows of an absence in advance, they may attend a different class during the week to make up the missed class, **SUBJECT TO THE PERMISSION OF THE INSTRUCTOR**. Some classes are at capacity, and simply can't accommodate any more people.

Gym Staff

1. Arrive for work 15 minutes before your shift. Check in with the head staff member on duty.
2. If you're the first staff member to arrive, get the lights and music on, even if you don't unlock the door until opening time.
3. Do a quick tidying sweep, checking for water bottles, chalk, and towels (and litter,) and then take over from the staff member on duty.
4. Go over the day's log with the staff member.
5. During your shift, your objective is to leave the facility cleaner than when you entered. Your priorities, in order:
 - a) clients with immediate needs (coming in the door, or asking for things)
 - b) clients waiting for service
 - c) the phone
 - d) cleaning
6. Stay active during your shift. There's a hard stool for sitting on; your job is to be out and seen by staff. If a client asks for something, you **IMMEDIATELY HURRY TO MEET THEIR REQUEST**.
7. No personal phone calls during your shift. Your cell phone can stay in your locker for break times only.
8. Remember, everything we do is done on purpose. The walls are grey on purpose, the mats are black on purpose. Chalk comes from a specific supplier on purpose. If you have a question, ask. If a client has a question, find out the answer right away.
9. If you are the last to leave the gym:
 - a) close on time. Ring the '10 minute to closing' bell using iTunes. **DO NOT CLOSE EARLY**, but don't close late either; be precise.
 - b) Begin tidying 30 minutes before closing, but don't discourage the use of equipment.
 - c) Leave the gym cleaner than when you found it.
 - d) Fill out deposit slips after the last client leaves, never while there is anyone in the gym.
 - e) Close the batch.
 - f) Check the washrooms. The staff member opening the gym in the morning should be able to turn on the lights and go.
 - g) Arm the alarm.
 - h) Double – check the door.

These steps are absolutely important enough to warrant a double-check if unsure. For instance, if you believe you may have left the batch unclosed or the door unlocked, turn around and check again.

Workouts You Won't Find Anywhere Else

10-10-20

The 10-10-20 goes like this:

Use one arm (or leg) to perform 10 reps of a given exercise. Use the other arm to perform 10 reps. Then use both together to do 20. You'll only want to do 2 sets of each.

First, the 10-10-20 squat. Do a 1-leg squat with your rear leg up on a step or bench. The front leg should be doing all the work. 10 per leg, whether you use dumbbells or a barbell. Use the other leg, then do 20 with both together.

10-10-20 bench press: pull a bench under a bar with about 35% of your max loaded on it. Bench dumbbells, one hand at a time, with the other hand empty to provide zero counterbalance. Then drop the dumbbells, grab the bar, and rep away with minimal pause.

You can do this technique with most machines, though I'd limit their use to the very end of the workout to bring up specific weaknesses. It's obvious how you do a 10-10-20 leg extension, for example, but here's a fun one for triceps:

Use the triceps rope. Grab both ends in one hand, and do 10 reps. Switch and do 10. Then double the weight (it still won't be THAT high) and hit 20.

The point is to go from a unilateral movement to a bilateral one (one hand to two hands.) This will allow different musculature to help out when you're most fatigued, but still perform reps as strictly as possible while you're fresh, and get a LOT of volume in during a short time frame.

Rampups

The point of the rampup is to place increasing tension on a given joint with decreasing rest. It's essentially a superset where the difficulty increases over time.

One word of warning: performing rampups too frequently is a sure way to overtrain. Make sure you've been training consistently for at least 3 months prior to attempting a rampup, even with light weight.

Here's how it's done. Choose 4 exercises that will flex a given joint. Our example will be the knee, so we'll choose 4 quadriceps- dominant movements. These will be: close-stance squat, leg extension, getups, and the irreplaceable Thurner.

First, perform the leg extension for 8 reps. This should feature a heavy weight that you can barely perform for 8. Take a 30 second rest.

Next, add an exercise. We'll squat in a quad-dominant position (feet closer.) Use a high-rep count and a LOT of flexion (go low.) So, say, 15 low squats. Then immediately return

to exercise #1 for the same rep count. Then take a 30 second rest.

Now add the third exercise - we'll use getups. A getup is done by starting in a kneeling position, rocking back onto your heels, and standing up rapidly. This is a lot tougher than it sounds. Do 10 getups, then 15 squats, then 8 leg extensions. Take a 30 second rest - no longer!

Finally, the Thurner. You start the Thurner in a kneeling position, but you lean back instead of sitting down on your heels. Keep everything from your knees up aligned, and push with your toes to come back to standing. If the rampup was challenging enough, these should really make your quadriceps ache. Do 8 thurners, then 10 getups, then 15 squats, then 8 leg extensions at the same weights. Cry to momma!

That's one example. We use the same one for triceps or hamstrings frequently. You could create a good one for latisimus dorsi pretty easily. Abs would be a real treat. I'm not sure I'd use this movement for biceps, though, since they're so easily overtrained.

Intervals

Intervals are a variation of Charles Staley's EDT (Escalating Density Training) Program. In an interval, you choose two exercises – usually opposing muscle groups – and perform a superset for a given time frame, usually 8 minutes for an intermediate trainee.

For instance, choosing an elbow flexion move like a seated row would make a good pairing with an elbow extension exercise like a triceps pushdown. Try to pick two movements that don't necessitate a lot of movement in between. The best are done with free weights, because there's literally no changeover time required.

An 8-minute interval looks like this:

Start with seated row. Choose a weight you can handle for 15-20 reps. Start performing reps with good form. Do as many as possible.

Immediately move to a triceps extension. Again, you're choosing a weight you can perform successfully for 15-20 reps. Do as many as you can.

Without resting, move right back to the seated row. Do as many reps as possible. If your form starts to go downhill, switch back to tri extension.

Keep an eye on the clock. Don't stop for 8 minutes. Don't drop the weight, even if it means you can only get 1 single rep for each exercise.

You're looking at a max of 5 intervals for one workout. That's plenty, believe me.

Tri-Set

If you want to really fatigue someone within an hour's space, pick 3 pushing movements, 3 pulling movements, 3 leg extension movements, 3 hip/back extension movements, and 3-6 ab movements.

One of each movement should be a larger, compound-muscle movement; one should be a single-joint movement involving the trainee's weakest link; and one should be a bodyweight movement that the trainee could ordinarily perform easily.

Start with the compound movement. 15 or 20 reps should be a mild challenge, but form should not degrade. If that occurs, lower the weight for the next set. Immediately after

finishing the compound movement, move to the isolation movement. Perform 15 reps. These should be fairly difficult. Then move right to the bodyweight movement, which should be challenging.

For example:

Close-grip bench press: 20 reps

Tri Extension (dumbbells) 15 reps

Pushup: 15 reps

Repeat 2-3x, depending on the level of the trainee.

Stabilizing Holds

As one limb performs a given movement, the other limb performs a static hold of the same movement.

For example, loop a rubber band over the top of the lat pulldown machine. Have the client perform 1-hand lat pulldowns with one hand while simultaneously stretching the band to his or her shoulder with the other.

In a variation, the client can perform the movement while holding the band static on another plane. Using the above example, the client could be stretching the band in a seated row position with the non-moving arm.

Finally, the trainer can anchor the band so that its force provides stress that's perpendicular to the movement. For instance, if the client is performing a seated row movement with 1 arm, the band can be looped around the wrist of the moving arm, and pulling the arm toward abduction while the client resists its force AND performs the movement.

Bandcuffs

Make handcuffs with resistance tubing. Tie tubing into a loop; difficulty is dependent on the trainee's familiarity with bands and arm abduction strength. Movement of the hands against the bands (a 'pulling apart' motion) determines the nature of the movement.

In one example, a barbell bench press, the action of the hands gripping the bar negates trapezius involvement for stretching the bands. However, the bands will have the effect of pulling the elbows closer to the trainee's torso, thus teaching proper bench press technique.

In another, using a pulldown device with articulating arms (independent of one another,) the trapezius actively assists in stretching the bands apart while the hands pull the handles toward the shoulders. As the biceps contract to pull the levers downward, the hands move apart, stretching the bands.

In the third example, the trainee must keep his/her hands a set distance apart while resisting the pull of the bands. In a prone dumbbell press, the bandcuffs are looped around the wrists and the dumbbells are pressed in a linear fashion, keeping enough tension on the bands to challenge the triceps and trapezius while the weight is being pressed. This, too, is good technique practice for the bench press.

Accommodating resistance

Adding a dynamic form of resistance to a fixed piece of resistance (ie a barbell.) In a normal movement, leverages generally improve from the beginning of concentric

contraction until the end of concentric contraction. For example, leverages improve from the lowest point of a squat to the point where the athlete is standing upright. Adding chains or bands to the ends of the bar will water-down the gains in leverages, without making the toughest part of the movement (initiating the concentric portion) harder.

As the bands stretch, or more links of the chain lift off the floor, the resistance increases as joint leverages are improving. This results in more work done per repetition, and also improves the ability to generate torque when joints are in position of good leverage, which is difficult to simulate in training without very high loads.

Tabata

Tabata is a method popularized by Anthony Robbins in the 1980s. Robbins was a motivational speaker who went around the country. He'd often talk about time-saving tips, and one was his \$7,000 'home gym,' the Tabata machine.

The machine was nothing special. The paradigm, though, was one of timed movement. The classic movement was a squat-and-press: holding dumbbells at the shoulders, squat down as low as possible, and thrust the weights overhead as you stand. Return them to the shoulders as you squat again. Perform as many reps as possible in 20 seconds, then take a 10-second break. Typically, a client should be able to get about 13 reps on the first set. There are 8 sets. They'll slow down and often have to decrease the dumbbell weight as the sets continue.

Post-activation potentiation

This is a method of creating neuromuscular excitation. Think of it as 'priming the pump.' If a client has to perform an all-out attempt, PAP theory holds that one attempt at a high percentage of 1RM (say, 90-95%, depending) followed by a lower weight will actually increase the lifter's strength on the second attempt (100% 1RM.)

On a bench press, then, assuming that the lifter is able to maintain good form on a 1RM attempt:

92% X 1

80% X 2-3 (this number varies, depending on the research source. Don't go to failure.)

102% X 1

Greater neuromuscular excitation means greater rate of force development. Again, the lifter must be able to maintain good form on a new, heavier weight. This will work if the limiting factor is RFD, and not mechanics; therefore, it's not for new lifters.

Applying the same principle to a sprinter, for instance, we could extrapolate to logically assume that a high-intensity plyometric jump (or series,) followed by a lower-intensity sprint or plyometric move (such as bounding,) could then increase a sprinter's RFD in a race to follow. As in the bench press, sprinting mechanics cannot be the limiting factor.

Static/Dynamic joint pairings

Since most joints are overlapped (and flexed) by muscles on opposite sides of the same joint, and it's true that each of those two will be responsible for other actions as well, it makes sense that one of the two (or many) will be stronger than the other. Also, though crossing the same joint, the actions of the two (or many) may be quite different.

As an example, take the biceps femoris and the gastrocnemius. Both cross the knee joint and actively assist in knee flexion. However, BF must also perform hip extension, while

gastrocs must plantarflex the foot. In a runner with patellofemoral syndrome, then, it's often safe to say that the hamstrings can be strengthened, but the gastrocs may not need to be. Since both flex the knee, how can we 'isolate' one without the other, and how can we maintain strength in the muscle that we've eliminated from the equation?

The answer is to flex the foot against resistance first, and hold it in a static position while the hamstrings flex the knee. Since gastrocs is 'busy' flexing the foot, it's less able to lend assistance to biceps femoris, which then has to work harder to move the same weight.

Loop a band around the toe of one shoe. Pull it tight. Flex the foot to stretch the band. Then perform a dynamic hamstrings movement. For the easiest example, sit on the hamstrings curl machine, flex the foot against a band, and do a 1-leg curl. This will be MUCH harder than before.

Weight-Alternate Supersets

A true 'pyramid,' in weight lifting, refers to doing a set of a lighter weight for x number of repetitions, followed by a slightly heavier weight for fewer repetitions, and then a heavier weight for even fewer. Many trainees now stop at this point. However, the original 'pyramid' model would have the trainee return to the original weight in descending order. For instance:

10lbs X 10
15lbs X 8
20lbs X 6
15lbs X 8
10lbs X 10

Alternating between two weights, though, for the same movement – non-stop – causes a LOT of fatigue. This is for advanced trainees only. Choose two weights for a given movement, or choose a bodyweight movement that can be 'aided' by positioning or assisting bands. Alternate a high-rep (easier weight) set with a lower-rep (tougher weight) set; immediately return to the higher-rep set, then the lower-rep set, and another lighter-weight set. Always end with the lighter weight. You're doing 5 total sets with zero rest in between.

Example #1:

Pullaparts – light band and heavy band
Light band X 15; no rest
Heavy band X 10; no rest
Light band X 15; no rest
Heavy band X 10; no rest
Light band X 15; end.

Example #2:

Pushups – legs straight and knees bent
Knees bent X 15; no rest
Legs straight X 10; no rest
Knees bent X 15; no rest
Legs straight X 10; no rest
Knees bent X 15; end.

Multiplanar Circuits

A timed circuit is similar to a lactate circuit in that the ultimate goal is muscular fatigue. However, a timed circuit usually revolves around a single joint, with resistance shifting

to and from multiple planes. A movement is done as rapidly as possible (under control) for a time limit, instead of a prescribed number of repetitions. These are frequently done with resistance bands for ease of transfer between exercises. The trainee does not stop between exercises, but can rest at the end of a circuit if desired. Usually 4-8 exercises are incorporated; antagonistic movements may be placed back-to-back to avoid cumulative fatigue or maximize rest.

Example (using bands:)

Wide fly

Chug

Alternating (1-hand) chug

Pullover

Tri Extension (overhead)

Example #2 (using bands around ankles:)

Front kick

In/out jumps

Forward lunge

Reverse lunge

Reverse Kick

I've read the Catalyst Team Manual, and agree to do my absolute best at living up to the high standard that Catalyst requires. I know to bring questions to my direct supervisor, and help others make the right decisions as required.

Name

Position

Date



Catalyst Athletic and Crossfit

HISTORY

Since 2005, our greatest struggle has been what athletes do after they LEAVE the Trainer's care. We can write the best programs in the world, and make kick-butt programs, but outside of our care, the athlete has been left to fend for themselves at home, or in a mass-market gym. This invariably leaves athletes scrounging for equipment, facing the wrath of undereducated gym staff and volunteers, trying to alter their programs to match the lowbrow mindset of the gym, or giving up entirely. Now, we can finally accommodate the needs of the exercising elite. We can finally offer a staircase, not just a step, to the next level. At last, everything an athlete needs to succeed is available in our city.

What's made us successful enough to expand in this way? Well, we wish it was because people were aware of our hard work, research, intuition, education, and experience; that's not the case. All of that stuff means zero without the personalities to impose it on people.

Staff charisma and personality thus becomes the absolute make-or-break issue with most clients. That's true in an even larger way with Crossfit: coaches have to be experienced, empathetic, exuberant, and LOUD. Crossfit is a sport; the coach must be a FAN, a PARENT, a TEAM CAPTAIN, and a REFEREE.

If the coach is overwhelmingly positive and loud, then correction to a participant won't feel negative. If the coach is usually quiet and only speaks up to correct participants, he/she will be seen as negative. To balance out the feedback that you'll have to give people to keep Crossfit safe and fair, you must put out 10x more positivity in advance. Crossfit is scary for new people. A good coach will make them feel part of the group above all. Make them welcome, but don't point them out; make sure their form is perfect, but don't hover to the exclusion of others; cheer for them but not more than others. They need to feel like they can blend in and be a part of this elite group.

People with a gym membership can do Crossfit on their own. They can bring in a bunch of friends and do it together. The only reason they have to pay for a coached group is the GROUP ATMOSPHERE and added intensity they get from the coach.

How Crossfit Works

When someone chooses to do a Crossfit session, they must have a punch card or pay the drop-in rate (high on purpose, to encourage them to buy sessions in advance.) They may not 'just try one group.' They may be offered free 'boot camps' on the weekend, however. To do Crossfit, they have to go through a 'boot camp' consisting of 3 hours of instruction, or get the OK from a Catalyst trainer.

On Crossfit Rest Days, Catalyst will provide a tough workout to replace Crossfit. We'll also post Gym Jones workouts at the entranceway for some variety.

How to Sell Crossfit Punch Cards

The purchaser has 5 options: 4 sessions, 8, 16, or Unlimited.

Session prices drop as more sessions are purchased. For instance, if a client purchases 4 sessions in advance, they pay \$13/session. If they purchase 16 sessions in advance, they're paying only \$8/session – a far better deal.

Unlimited is sold month-by-month. The price for a non-gym member is the same as it would be for a gym member, plus the price of a membership. This way, we encourage people to come as often as possible, even if they're not doing Crossfit.

When someone buys a punch card, there should be cards already made and laminated in different amounts. Punch cards are as valuable as cash, and should be closely monitored and inventoried. Clients are responsible for their card – we can't replace lost cards.

To make the cards in different amounts of sessions:

4 sessions – cut the card to remove all numbers after 4. Laminate the card.

8 sessions – cut the card to remove all numbers after 8. Laminate the card.

Unlimited Crossfit – put the client's name on the back of the card, just like a membership card (below.) Laminate the card.

How to Sell Gym Memberships

A client must provide you with a voided cheque to join, or else buy memberships one month at a time. Clients will NOT be allowed to use the facility without presenting their card at the entranceway, WITH NO EXCEPTIONS. If we fail to enforce this rule once, we can't enforce it again. DO NOT make exceptions. Ever.

When a member joins, they should be given the Catalyst Athletic Code of Honour sheet. They should be asked if they've used a Catalyst trainer before, or if they'll be following their own program.

The rate is \$35/month plus GST. While you don't need a gym membership to do Crossfit groups, it's highly recommended; the savings for the member almost pay for the membership itself. Total: 36.75, which is billed the first working day of every month automatically. There are no signup fees. There are no fees to end your membership. In return, we ask that clients notify us at least 2 weeks before they quit.

Starting Crossfit Groups – Notifying Members

When members join, part of the Code of Honour is to respect Crossfit groups and make every endeavour to stay out of their way. That may mean sacrificing space on equipment, or occasionally altering a workout to make way for the group.

5 minutes before the group, play the '5 Minutes To Group' sound effect. With 10 seconds left, play the Countdown sound effect through iTunes. The stereo system will stream the sound through the gym, which will have the effect of moving people out of the way quickly.

How To Maintain Catalyst Athletic

Catalyst athletic takes the appearance of 'rugged on purpose.' In effect, people will accept anything as long as it appears to be done on purpose, instead of just not being done. An example: wake up and gel your hair the way it is from sleep. Because it appears that way ON PURPOSE (you've gelled it that way,) people are less likely to question it. If you just walk out of the house with bed-head, you'll get some stares. If Catalyst Athletic appears rough because of its makeup (concrete and steel,) we have to provide CONTRAST to enforce the idea that its appearance is 100% orchestrated. That means bright banners, cleanliness, lots of life (plants, etc.) lots of excitement and noise,

and professional staff. If we fail to deliver on any of these, we're not orchestrated: we're just sloppy. There's a fine line, in our case, between doing things exactly right and looking haphazard.

First thing in the morning, write the WOD on the big whiteboard. To the right, write the Catalyst in-house WOD and the Gym Jones WOD from the day before.

How to Coach Crossfit

1. 10 minutes before the group is due to begin, prepare the area needed. Group bars, kettlebells, and all else needed for the group.
2. Warn gym members of the impending group, and its need for equipment. Do your best to accommodate everyone, but the Crossfit group takes priority.
3. 5 minutes before the start of the group, greet clients and punch their cards. **DO NOT ALLOW A CLIENT TO PARTICIPATE UNTIL THEIR CARD HAS BEEN PUNCHED.**
4. Proceed with the Crossfit Warmup. Note that clients arriving late may miss some of the warmup; it's their responsibility to arrive on time.
5. At 5 minutes past the hour, review the workout loudly one final time, and give the 3,2,1 go! Command.
6. Be ENGAGED! Be LOUD! Be ENCOURAGING! YELL and SCREAM!
7. Record client records on the whiteboard.
8. Lead the group in a cool-down exercise; if the WOD is very short, teach a skill unrelated to the WOD for at least 20 minutes. For instance, if the group has 'Fran' as a workout, spend at least 20 more minutes coaching deadlift or another exercise that they're not too exhausted to perform.
9. After workouts, pick 3 clients from the group (change every time.) Send an email encouraging or chirping.

Crossfit Rest Days

On a rest day, Catalyst (Mike or Chris) will develop an in-house WOD. It will be emailed to the main Catalyst account, as well as to those in charge in each facility (Watson and Kubis.) The first person in the facility should make sure the Catalyst WOD is written on the whiteboards.

APPENDIX A – MINDBODYONLINE USERS' GUIDE

Point-of-Sale

If you sell products and services, this tab is called the Retail Tab. If you disable the product management module and sell services only, this tab is called the Buy Tab.

There are two types of sales - a Walk-In Sale and a Client Sale:

- A Walk-In Sale is ideal for products that you do not care to track to a specific person, or any non-service related sale. Do not use Walk-In Sale when purchasing services.
- A Client Sale should be used if you want to track a client's purchases, or if you purchase a service.

To make purchases

1. Lookup a client's account: Retail => Lookup Client
2. Add item(s) to the client's ticket by choosing a tab in the Add Item Box and selecting from the search options below the tabs, then click Add Item.
3. The following fields can be edited prior to adding the item to the client's ticket:
 - Price - By default, this is the price you inputted when you added the series or package. The price can be edited, but it is best to use the discount field if you are discounting a package.
 - Quantity - If the client is purchasing more than 1 of the same package, change the quantity.
 - Count - (services only) If the client is to receive more or less sessions than what is set in the series or package, you can edit it before adding the item to the ticket. This is useful to carry balances forward from previous software departments.
 - Duration - (services only) The duration or days until expiration can be increased or decreased before adding the item to the ticket. This is useful to carry balances forward from previous software departments.
 - Activates - If you want to delay activation for a series, change the Activates date before adding the item to the ticket. If the activation date is previous to the sale date, you must change the sale date on the ticket. For contracts and packages, this field is titled Contract Start.
 - Discount - Use the discount field to enter a percent or amount discount for a package.
 - Tax - If you are selling a product or service that usually requires sales tax and don't want to charge for it, check the no tax box here.
 - Sale Notes - Add notes for the sales here. These notes appear in the client's Account Details and may be emailed to the client depending upon your Retail Settings.
 - (If you cannot edit some of the fields listed, then you do not have sufficient user rights)
 - To learn how to adjust Series & Membership Settings, [click here](#) [1].

- To learn how to adjust the add item behavior, reference the Retail Settings Section of the [General Setup & Options Article](#) [2].
 - Commission - If you use the [Commission Feature](#) [3], then you will be prompted to choose a commission recipient. The recipient's name will appear in parenthesis beside the line item on the sales ticket. If two commission recipients are chosen, then a both names will be listed.
- 4. If you use Sales Team Management, then the name of the Sales Rep assigned to the client you are checking out will automatically populate in the Sales Rep Dropdown Menu. If a rep is not assigned to the client's account, then the menu will automatically populate with the name of the staff member processing the sale (the staff member you are logged in as).
- 5. Remove items, apply a Promotion Code, or, if necessary, change the sale date in the upper right corner of the Ticket Window.
- 6. Select a Payment Method, or split the sale between as many methods as you like. Since clients can potentially pay for a sale using account and a couple different credit card methods, you'll notice a radio button titled AutoPay Method that lets you pick what will be charged (credit card, ACH, or account) for the contract's future AutoPays.
- 7. Save and complete the sale by clicking on one of the following buttons:
 - Save No Receipt
 - Save Print Receipt
 - Save Print Gift Receipt
 - Save Create Invoice
 - Save Print Invoice

[Redeeming undesignated gift cards](#)

If a gift card was sold with an undesignated recipient, you will need to assign it once they come in to use it.

1. Look up the recipient's account or click Add New to add them as a new client
2. Once you have their account selected in the Retail Screen, locate the Assign Gift Card Field next to the client's name
3. Type the number of the gift card
4. Click Assign

The amount that the gift card amount now shows on the recipient's account as credit. If they can only use the gift card amount for specific services, purchase the service using the gift card credit right away:

1. Lookup the client's account
2. Click Services from the Add Item Box
3. Select the Department from which you want to purchase services
4. Select an item, which are your series and memberships set up earlier
5. Make changes to the activation date, prices, or other series details if needed, then click Add Item
6. Choose the Account Payment Method
7. Complete the sale

Note: If you've disabled Assignable Gift Cards - Allow Undesignated on the General Setup & Options Screen, then the Assign Gift Card Field will not display.

[Account credit](#)

These steps can be used to resolve a negative balance, or add a positive balance for future purchases. For example, some businesses will keep credit on file for clients to use toward water purchases, or other items, so the client does not have to remember to bring their wallet, or cash with them every time they come.

1. Lookup the Client's account
2. Click Credit/Gift Cards
3. Select a credit from the item list
4. If necessary, modify the credit amount
5. Click Add Item
6. Select the payment method
7. Complete the sale

In the case that you are recreating an account balance from another system, do the following:

1. First make sure you have a credit set up to use for recreating balances. See [Credits and Gift Cards](#) [4] for steps on how to do this.
2. Click Credit/Gift Cards.
3. Select a credit from the item list.
4. If necessary, modify the credit amount. If you setup the credit correctly, you will be able to change the credit amount and keep the price at \$0.00.
5. Click Add Item
6. Select the payment method as Other. Some businesses even create a new payment method to use when they have to recreate a sale from another system. [Click here to learn how.](#)
7. Click Save no Receipt or Save Print Receipt to complete the sale.

[Paying for another client](#)

The pay for another client feature allows your clients to pay for their friends so that services purchased are under the Accounts and Contracts for the friend, but the related sales records are under the purchaser's Purchase History.

To pay for another client:

1. In the upper right corner of the Add Item box, click Pay for Another Client
2. Look up the item you wish to purchase for the other client.
3. Click Add Item
4. Select the payment method
5. Click Save No Receipt or Save Print Receipt to complete the sale

A buddy icon is displayed next to all purchases in detail view that were made for a friend. If the purchaser simply wants to share what they purchased with a friend then you should set up a package sharing relationship. [Click here](#) [5] to learn how.

[Payment plan on the fly](#)

While checking a client out on the Retail Screen, you can quickly create a payment plan which allows your client to pay your business over time. If you click the Split Sale Checkbox as you're checking out a client, you'll notice a Setup Payment Plan Checkbox

in the PAYMENT METHOD 1 section. Click the checkbox, and you can create the perfect on-the-fly payment plan - which accurately calculates the payment amounts for the client -- without ever leaving the Retail Screen. You specify the frequency and number of future AutoPays that the client will pay with his or her credit card. The rest of the ticket will be paid via credit card in the PAYMENT METHOD 2 Window below. By using a credit card in PAYMENT METHOD 2 you are instantly making sure that the client's credit card is valid for his or her upcoming AutoPays created by the sale.

To see this feature:

1. Click on the Retail Tab
2. Look up a client
3. Add an item to the ticket
4. Choose Account for PAYMENT METHOD 1
5. Choose a credit card option for PAYMENT METHOD 2
6. Click on the new Setup Payment Plan Checkbox that appears in the PAYMENT METHOD 1 section

Note: This feature only works if you have an integrated MINDBODY Merchant Account

Class Sign-In

Individual class sign in sheets can be accessed by clicking on the sign in sheet link next to the scheduled class.

Sign in sheets can be accessed regardless of color or day. This means that as a studio user you can look at past, present or future sign in sheets to view, sign in students, create substitutions, or accomplish any of the tasks outlined under Sign-In Sheet Functions below.

[To access a sign-in sheet](#)

1. Locate the class date and time and click the underlined Sign In link to the right of the class time.

Client Lookup Options:

- Clients can be looked up using: last name, first name, middle name, nick name, phone or ID.
- If ID is used in conjunction with a scanner and barcode ID tag, you can simply scan the barcode while the cursor is flashing in the search field and the client will automatically be signed into the class.
- Settings for the default look up and extra search options are available under General Setup and Options (select Toolbox => Setup => General Setup & Options).

[To sign someone into class](#)

1. Click on the corresponding sign in link.
2. Choose the search field option: All fields, Last name, first name, middle name, nick name, phone or ID.
 - The system searches using All Fields by default. This means, if your client's name is Michael Tappan, you can type in "Michael T" and the system will return Michael Tappan as a search result. Or, you type in Michael's client ID#, his phone number, email address, or nick name (if enabled) into the search field, he will come up, too.
3. Type in the first few letters of the client's name, or first few numbers of the phone or id.
4. Click Search.
5. Click on the client name from the list of search results.

[Buy Series and Memberships from the Sign In Sheet](#)

1. Click the buy button to make a purchase for a class from the sign in sheet.
2. Click Buy next to the client name for which you would like to make a purchase.
3. By default, the retail tab will display the Department (program) of the class for which the client has a reservation.
4. To make a purchase under the defaulted Department, choose the item from the Item drop down list. To make a purchase under a different department, change the department drop down list. To make another type of purchase click the appropriate button at the top of the add item window such as Products or Credits/Gift Cards.
5. Click Add Item. If you need to purchase other items, add those to the ticket as well using the Add Item window.
6. Choose the payment method.

7. Click Save no Receipt or Save Print Receipt to complete the sale.

APPENDIX 'B' – CAT TESTING

Are you fit?

How do you know?

Let me back up. Our definition of fitness: **readiness**. Are you ready, right now, without any warmup or preparation, to sprint at your top speed? Are you prepared to jump as high as your desk? If you had to, could you quickly pick up something heavy and lift it overhead?

In our seated society, these needs may seem a bit extreme. No terrorist is going to storm your office this morning. Fire will likely not tear through your living room tonight. A boulder is unlikely to pin your buddy to the pavement on the way home from work.

“...we have not spent the last 65 million or so years finely honing our physiology to watch Oprah. Like it or not, we are the product of a very long process of adaptation to a harsh physical existence, and the past couple centuries of comparative ease and plenty are not enough time to change our genome. We humans are at our best when our existence mirrors, or at least simulates, the one we are still genetically adapted to live. And that is the purpose of exercise.”

— Coach Mark Rippetoe

Our needs as humans differ not by kind, but by scale. Late for a meeting, you're going to have to bound up a set of stairs and not be found panting at the top. Moving your buddy to a new apartment, you'll need to climb up on that tailgate somehow. And grandma's gotta get that flour from the pantry, no matter what shelf it's on. You may never appear at WPO nationals with a 1100lbs squat, but you'll want to be able to sit down and stand back up again for as long as you live.

"Trainers and civilians needs are more akin to the firefighter, cop and soldier than they are to the elite athlete. The reason being, you don't know what gameday will look like, you don't know when it will occur and you don't know what the stressor will be, you just don't know." – Coach Greg Glassman

You have plenty of reasons to be fit: longevity, avoidance and minimization of disease and its effects, interpersonal relationships, mental state, quality of life...and just plain old ability to LIVE while you've got the chance.

Our society's common view of the 'fit' persona is that of a low bodyfat percentage. However, less body fat is not a determinant of fitness, but rather a correlate. People who are fit, generally, don't carry a lot of fat. But people who carry little fat aren't necessarily fit; think about survivors of concentration camps, the very poor, and the eating-disordered. Likewise, a low weight or BMI score is a faulty indicator of fitness. Think of the thousands (millions?) who smoke to keep their weight low

through appetite suppression: they may be 10 pounds lighter than you are, but will they live longer? Are they enjoying life?

There are different kinds of fitness, of course. Runners maintain that they're most fit, but they're talking about aerobic fitness alone. Powerlifters are strong, but suffer more heart attacks than average. Gymnasts look the part, but have never shown more resistance to disease, or longer lifespans than the average; in fact, their sport has huge injury rates at the competitive level. Bodybuilders...well, come on. Martial artists are very agile; sprinters are fast; high jumpers have a lot of power. But they're all lacking elsewhere. None are good at everything. Specialization – being excellent at one thing – necessarily means the sacrifice of something else.

Our concern is the development of overall fitness: the kind that increases your lifespan, improves the life you have, broadens your horizons, keeps you 'able,' and maybe even makes you a hero. Lots more to come on that particular topic.

Different sports or specializations measure fitness differently. Until now, there has never existed an overall scale upon which to place yourself. When the 2008 Olympics were over, the popular question among athletes at Catalyst was, "Who's the better athlete – Usain Bolt, or Michael Phelps?" And the common answer was, there's no way to know.

Believe it or not, until this point, everyone's been talking about getting fit, or getting more fit, or improving fitness, and no one's developed an all-encompassing scale to measure starting points and progress. No one has put runners and powerlifters and dancers and jumpers and ping pong players on a level playing field, deconstructed their physical traits, and then compared them to one another. The wait is over.

Before we get to the CAT scale, it's helpful to see what brought us, Catalyst Fitness, to this point. Up To This Point

In 2006, Catalyst Fitness began to study exercise adherence in depth. We put together a double-blind study to compare the adherence rates for two groups of exercisers: one group was given a booklet of exercises and a workout plan in a binder, and one was given the same booklet of exercises, but received a daily email with their workout instead.

From there, we changed variables on a rotational basis. We were very precise about detail. All we cared about was this: if we do X, are you more likely to do the workout? Will you like the exercises better if we change Y?

When we started, we had no one behind us. Government bodies took no interest. We had no funding. But we knew we needed to find out WHY people LIKE exercise before we could deliver the kind of elite coaching that we wanted to deliver.

A few things, out of the dozens we found out:

1. The common template of breaking the body into component parts and training them separately decreases adherence. You won't like it, and you probably won't do it, at least not for long.
2. If you have to do it alone, you probably won't do it for long.
3. If we name a workout, and then give it to you again later, and tell you how you did the first time, you'll do better the second time. You're more competitive than you think.
4. If we give you a monthly rank, you'll want to improve it.
5. If we tell you the BEST score or time EVER for a particular workout, you'll do better. You need a frame of reference, in other words.
6. If we connect you, anonymously, to other people doing the same workout, you're more likely to do it, and report that you enjoyed it, even if there's no chance they could find out your real identity.
7. Exercises using your bodyweight or free weights are much more enjoyable than using machines. We like free weights and bodyweight exercises for lots of other reasons, too, but this is a big one.
8. Measurement should be broad and include as many variables as possible. Throw away the scale! Measure your progress on individual workouts, loads moved, time to completion, comparison against others, feeling of well-being, towels soaked through... anything. But don't put it all on the scale. The scale as a measurement for fitness is invalid. There are just so many other factors to consider that you can't put all your eggs into one basket.

A True Measure of Fitness: The CAT Scale

We've broken 'Fitness' into its component elements. They are:

1. Cardiovascular/Respiratory Function – the ability of body systems to gather, process, and deliver oxygen.
2. Stamina – the ability of body systems to utilize, store, process, and deliver energy.
3. Strength – the ability of a muscular unit, or group of muscular units, to apply force.
4. Flexibility – the ability to maximize the range of motion at a given joint.
5. Power – the ability of a muscular unit, or combination of muscular units, to apply maximum force in minimum time.
6. Speed – the ability to minimize the time cycle of a repeated movement.
7. Coordination – the ability to combine several distinct movement patterns into a single movement.
8. Agility – the ability to minimize transition time from one movement to another.
9. Balance – the ability to control the placement of the body's centre of gravity in relation to its support base.
10. Body Composition – the maintenance of lean muscle tissue and a low bodyfat percentage.

In choosing the 10 Elements, we found our best definition through a combination of our research and Crossfit, who in turn borrowed their definitions from Jim Cawley, and Bruce Evans of Dynamax. As mentioned in the 'Catalyst and Crossfit' section (later,) we've substituted Body Composition for Accuracy, but otherwise the list is the same.

The CAT Scale assigns a value – from 0 to 10 – to each of these Elements, which will give a total of 100 possible points. Assigning an equal value to each attribute brings the idea of General Physical Preparedness to the forefront, since no Element is more important than another. What good, after all, is a 10 out of 10 in the Cardiovascular/Respiratory category if you're developing osteoporosis from overtraining and poor eating choices? Strength is also critically important in life.

The Elements are correlated, though: it's unlikely that an individual will score a 10 out of 10 in the Stamina Element, but have a high bodyfat percentage (Body Composition Element.) In that way, improving performance in one category indirectly impacts performance in another.

Can increased performance in one Element adversely affect performance in another? Of course. The closer you are to specializing in one Element, the more your score in a competing Element will suffer. Remember, our goal is broad-based, general fitness. Specialists in one Element (aka competitive athletes,) won't train for this type of GPP other than very early in the off-season.

As an example, a huge score in the Strength Test may require bodily changes that negatively effect your Coordination score. To some, that may be perfectly acceptable. But our goal is to present an overall picture of fitness.

Last question: is a score of 100 truly attainable? We think so. None of us are there yet, but who's to say it can't be done?

Measuring the 10 Elements of Fitness

Our research over the last several months of 2008 was largely in the area of validity testing. We've chosen tests for each of the 10 Elements based on:

1. Longevity – they've been around awhile
2. Peer-review – they've been used and critiqued and argued extensively
3. Scientific – they're replicable
4. Validity – they provide precisely the type of information we require
5. Simplicity – they can be done with minimal equipment
6. Rigor – while they can be performed by a novice, their level of accuracy improves in the hands of a professional.
7. Relevance – each Element must be challenging even to one specialized in that particular Element.

As an example, Element #1: Cardiovascular/Respiratory function uses the O'Neill Aerobic Test to determine aerobic capacity. We chose the O'Neill Test from literally thousands of tests done with varying pieces of equipment. We picked O'Neill over VO2Max testing because of equipment availability and new research questioning the replicability of breath-measuring tests. We chose the ergometer over running for the test because different variables unrelated to aerobic prowess can influence a running test (injury, muscular fatigue, and technique.) The O'Neill Test has been thoroughly validated in the scientific literature, is replicable anywhere, is simple to perform (just go as far as possible in 4:00,) and can be done by anyone, but is more accurate when coached by a professional.

Each test selection required the same level of scrutiny. While we advocate the CAT Score system for use in the non-competitive population, it can serve as a measuring stick (and sometimes a real eye-opener!) for professional athletes.

One final note on relevance: Different specializations (ie athletes in different sports,) measure different physical attributes according to different scales. Runners call hill running 'strength training,' and powerlifters call kettlebell swinging 'cardio.' We've chosen tests that would be applicable even to their specialists. We haven't gone for a spectrum of relativity here: if you're a golfer, and you're 'agile enough' for golf, that doesn't mean you're 'agile enough' on the larger scale. If you're 'strong for a runner,' well, that just isn't enough on a broad, general scale, of which running is only a small part. Other Elements of fitness may be seriously lacking.

Using The CAT Score To Improve Fitness

Your Total CAT Score, out of 100 possible points, is a nice figure to have. It will be motivational, for one thing, and give you a good overall sense of your fitness. However, the real treasure is in the individual Element scores and how they compare to one another.

Since total fitness depends on each of the 10 Elements equally, large discrepancies will indicate potential health hazards. They will also provide guidance when establishing workout plans and training priorities.

To use the Strength vs. Cardiovascular capacity example again, you may find that your Strength score is a 9 out of 10 (if that's true, way to go! Great!) But if your Cardiovascular score isn't even close (a 3 or 4? Uh-oh!) then you may wish to reexamine your training priorities; your health may be at risk. Since an obese person can still have a terrific Strength score, dominance in one category at the expense of another is not a great idea. More support in favour of developing general, broadly-applied fitness.

To flip that example on its head, a runner who scores a 9.25 out of 10 on the Cardiovascular score may be more likely to become injured while moving a load, or develop osteoporosis, or suffer a joint injury as a result of muscle imbalance.

When you look at your overall CAT Score, search out the biggest discrepancy between Elements. When in doubt, just find the Element in which you scored lowest. Prioritize that Element in your training. Do the activity (activities) necessary to improve that Element's Score early in the week; pursue them with greater intensity; seek professional guidance; play a sport where that Element is the dominant one.

If your Strength score is 9, and your Cardiovascular score is 3, begin training for a 5k running race, for example. Spend more time reading about running, putting miles under your feet, getting coaching, and running with friends. Maintaining your strength level as a secondary goal is fine, but prioritize the Cardiovascular Element for a few months. Don't worry, your strength won't completely desert you, and you can always come back to it later. Our argument is that a 3-point improvement in one Element is worth the sacrifice of 1 point in another. You're still 2 points ahead in your total CAT score. Again, competitive athletes may be unwilling to slip even one point in the Element of their specialty; that's obvious. That's where a professional comes in: to minimize slippage in one Element while drastically improving your score in another Element.

Catalyst and Crossfit

In 2005, an athlete mentioned Crossfit to me. We were in the pit at the St. Joseph Island Triathlon (a great local race, www.stjosephislandtriathlon.com) and he asked me if I'd heard of it. My initial response was something like, "That sounds like bulls---."

Keep in mind that, in 2005, I was a product of my education up until that point. I was primarily familiar with athletic training (specialization, in other words,) and bodybuilding. I thought that 'fitness' was a combination of the two. It wasn't until we started conducting our own research that I started to contradict my own education. And it wasn't until we'd done two YEARS of studying variables that I had to change my mind: we were no longer studying fat loss, or running speed, or strength, or even adherence. We were studying all of them. We were studying Crossfit.

To use the Crossfit community's own definition, CrossFit is a strength and conditioning system built on constantly varied, if not randomized, functional movements executed at high intensity.

But Crossfit is also whole-body exercise. It's heavy lifting, but it's also gymnastics, sprinting, running, Olympic lifting, calisthenics, and a game. Most Crossfit enthusiasts call it 'The Sport of Fitness,' because it's predicated on the simple idea of raising work capacity (General Physical Preparedness, or GPP.) And it's fun.

When we, at Catalyst, talk about raising each person's CAT score, we're talking about increasing their GPP. That is, we want to make everyone generally good at everything without specializing in anything, except in the case of the athlete, where specialization is obviously the norm.

Our definitions of fitness, and the different elements therein, are the same as Crossfit's definitions, with one exception: body composition. We believe that body composition is independent enough of the other measurements to warrant its own score. For simplicity, we've substituted body composition as one of our 10 elements in place of Crossfit's 'Accuracy' element. Accuracy relies not only on your body, but also on an external implement (for instance, the quality and materials of the ball will determine your accuracy in its throw as much as your own spatial awareness will.) However, body composition is not standard among non-exercisers; your genetics play a role. That's why we give body composition equal weight when considering our 10 elements of fitness.

That said, we often use Crossfit to help our clientele achieve higher CAT scores. And it works well. Crossfit training is second only to using a Catalyst Trainer when it comes to improving your overall fitness. It integrates most (if not all) of the components we discovered were necessary to increase adherence.

A final idea which may raise questions: that the Jack of all trades is master of none. While we avoid specialization in a given sporting event, you can become excellent at different categories of fitness – even categories that may seem mutually exclusive – without detriment. True, an Olympic-level weightlifter may never win the Olympic Marathon, but that doesn't mean they can't run 5km without throwing up. There's more overlap between physical traits than there is friction. The best Olympic weightlifters, for instance, are excellent sprinters, at least at short distances. High jumpers have high levels of coordination. Soccer players, in general, have not only good aerobic endurance, but also high stamina levels. Some recreational gym-goers may be afraid to lose muscularity in their pursuit of anaerobic excellence, but they need not worry. Only at the very elite levels (meaning a very specific skill set) is there risk of performance decline when training other fitness traits.

Testing Overview

1. Cardiovascular/Respiratory Function – the ability of body systems to gather, process, and deliver oxygen.
Test: O’Neill 4-Minute Test (Concept II)
2. Stamina – the ability of body systems to utilize, store, process, and deliver energy.
Test: Tabata Squat and Pushup
3. Strength – the ability of a muscular unit, or group of muscular units, to apply force.
Test: Crossfit Total
4. Flexibility – the ability to maximize the range of motion at a given joint.
Tests: Trunk Rotation, 90/90 Hamstrings Test, V-Sit Test, Shoulder Flexibility Test, Posterior Chain Test
5. Power – the ability of a muscular unit, or combination of muscular units, to apply maximum force in minimum time.
Test: Vertical Jump Test (Sargent Jump)
6. Speed – the ability to minimize the time cycle of a repeated movement.
Test: 40yd sprint
7. Coordination – the ability to combine several distinct movement patterns into a single movement.
Test: Skipping.
8. Agility – the ability to minimize transition time from one movement to another.
Test: Dots Drill.
9. Balance – the ability to control the placement of the body’s centre of gravity in relation to its support base.
Test: Stork Test
10. Body Composition – the maintenance of lean muscle tissue and a low bodyfat percentage.
Test: Skinfold Measurement

Testing Order

Since fatigue from one type of test can influence the score of the next, it's important to perform the tests in such an order that fatigue is minimized.

During the initial testing period, perform the tests in this order:

Aerobic (O'Neill Test)

Body Composition

Flexibility

Power

Speed

Balance

Agility

Coordination

Stamina

...the **Strength** test (Crossfit Total) may be performed on a different day, following a general and then specific warm-up, due to the heavy central nervous system taxation on elite clients.

Retesting is done on a test-by-test basis, but never again on the same day. Crossfit will dictate that some tests (stamina, strength) are done on a fairly random basis, but others should be planned for retest based on their typical rate of improvement. For instance, aerobic capacity should be retested after 3 weeks of training, because aerobic capacity is typically improved after that period.

The Tests

Element #1: Cardiovascular/Respiratory Function – the ability of body systems to gather, process, and deliver oxygen.

Four Minute O'Neill Fitness Test

The O'Neill Fitness Test is designed to give a simple and reliable test of aerobic fitness.

After about 10 minutes of familiarization with the Concept2 Indoor Rower, the test can be carried out to get an indication of baseline aerobic fitness by simply comparing the distance covered in four minutes on the chart.

Further regular tests will indicate progress and are suitable for people of all ages and gender.

Test Protocol

Set the monitor on the Concept2 Indoor Rower for four minutes.

Row for four minutes (wind resistance set to '3.')

Look for your age and weight category in the left hand column.

Find your distance covered and check your condition from the row at the top.

Women	Excellent	Good	Above Average	Average	Below Average
19-29 Lwt	1078	1038	958	878	798
30-39 Lwt	1050	1010	929	849	769
40-49 Lwt	1030	990	909	829	749
50-59 Lwt	1011	971	891	811	730
60-69 Lwt	992	951	871	791	711
70-79 Lwt	973	933	852	772	692
19-29 Hwt	1105	1065	985	905	824
30-39 Hwt	1057	1017	936	856	776
40-49 Hwt	1044	1004	923	843	763
50-59 Hwt	1037	997	917	836	756
60-69 Hwt	1023	983	903	823	743

70-79 Hwt	944	904	823	743	663
-----------	-----	-----	-----	-----	-----

Lwt = 61.5Kg or less (9st 9lb)

Men	Excellent	Good	Above Average	Average	Below Average
19-29 Lwt	1243	1203	1122	1042	962
30-39 Lwt	1227	1187	1107	1026	946
40-49 Lwt	1208	1168	1087	1007	927
50-59 Lwt	1172	1132	1051	971	891
60-69 Lwt	1131	1091	1011	931	850
70-79 Lwt	1052	1012	931	851	771
80-89 Lwt	953	912	832	752	672
19-29 Hwt	1281	1241	1161	1080	1000
30-39 Hwt	1237	1197	1117	1037	957
40-49 Hwt	1219	1178	1098	1018	938
50-59 Hwt	1182	1142	1062	982	901
60-69 Hwt	1141	1101	1021	940	860
70-79 Hwt	1061	1020	940	860	780
80-89 Hwt	993	953	872	792	712

Lwt = 75Kg or less (11st 11lb)

Juniors	Excellent	Good	Above Average	Average	Below Average
Women J12	886	846	766	685	605
Women J13	956	916	835	755	675

Women J14	999	955	885	795	725
Women J15	1042	1001	921	841	761
Women J16	1074	1034	954	874	793
Women J17	1109	1069	988	908	828
Women J18 Lwt	1046	1006	926	846	765
Women J18 Hwt	1100	1060	980	899	819
Men Junior 12	888	848	768	687	607
Men Junior 13	1008	967	887	807	727
Men Junior 14	1095	1055	974	894	814
Men Junior 15	1171	1130	1050	970	890
Men Junior 16	1212	1172	1092	1011	931
Men Junior 17	1251	1211	1130	1050	970
Men Junior 18 Lwt	1221	1180	1100	1020	940
Men Junior 18 Hwt	1281	1241	1161	1081	1000

Lwt = 75Kg or less (11st 11lb)

Scoring for CAT Test:

Aerobic	Test: O'Neill Test	Points
Excellent		10
Very Good		9
Good		8
Above Average		7
Average		6
Below Average		5
Below Average – 100		4
Below Average – 200		3
Below Average – 300		2
Below Average – 400		1

Element #2: Stamina – the ability of body systems to utilize, store, process, and deliver energy.

Test: Tabata Squat and Pushup

For twenty seconds do as many reps of the assigned exercise as you can - then rest 10 seconds. Repeat this seven more times for a total of 8 intervals, 4 minutes total exercise. The score is the least number of reps for any of the eight intervals.

Start with a bodyweight squat. The athlete’s thighs must reach parallel, as defined in the ‘strength’ category. Arms may either travel in front of the torso or stay on the hips, but must not make contact with the floor or the thigh.

Following 8 rounds of the squat, the athlete has only their normal 10-second break to set up for the pushup.

Scoring: take the lowest number of reps achieved from the 8 sets of squats, and add it to the lowest number of reps achieved from the 8 sets of pushups.

Example(using 3 rounds only)

Round	SQ	PU
1	18	15
2	17	16
3	19	14

The lowest number of reps achieved is 17 in the SQ, and 14 in the PU. Total of 31 reps.

Score Chart:

>45	>40	10
40-45	35-39	9
35-39	30-34	8
30-34	25-29	7
25-29	20-24	6
20-24	15-19	5
15-19	10-14	4
10-14	5-9	3
5-9	1-4	2
1-4	0	1
MALE(reps)	FEMALE(reps)	

Element #3: Strength – the ability of a muscular unit, or group of muscular units, to apply force.

Test: Crossfit Total

Crossfit Total is based on the powerlifting meet template. Powerlifting meets are set up to maximally test pushing strength, lower-body extension strength, and whole-body pulling strength, using the back squat, bench press, and Deadlift.

Crossfit, though, chooses to use the Press instead of the bench press. The reasons go back to the origins of weightlifting (that is, Olympic Weightlifting,) when there were 3 events: the Clean, the Press, and the Snatch. The Press was dropped from Olympic competition eventually. The Squat, Bench Press, and Deadlift were all originally accessory movements to help increase the Clean and Jerk and Snatch. Powerlifting is the ultimate test of those 3 movements. Crossfit Total is a terrific tool for testing the same measure of strength without using the bench press.

The order for performing the three lifts will be squat, press, and then deadlift. The best single attempt for each of the three lifts are added together for the CrossFit Total.

There is no time limit for each lift or for the length of the session in which they are all performed, but they must all be performed during one session—i.e., you cannot leave the area to rest or perform other activities between the three lifts. Multiple progressions to the best attempt are not allowed; do not work up to your best squat, then change an item of equipment or clothing and work up to it again to try to better your first effort.

Squat Rules

The squat must be done from the squat stands or power rack. The bar must be placed on the back and walked out to clear the rack completely. No contact with the rack is permitted until the bar is replaced in the rack. Once the bar is lowered, the stance cannot change until the bar is to be racked. The starting position must be completely upright, with the knees and the hips fully extended and with the chest up. The hips are lowered until the top surfaces of both of the legs at the hip joint are lower than the knees, and then the bar is lifted back up. The bottom position is identified by A) the apex of the crease in the shorts formed as the hips are lowered, B) the surface of the top of the patella, C) the plane formed by a straight line between the two, and D) the dipping of the hip end of that plane below horizontal. The finish position is the same as the

starting position, and the athlete must return to it before the bar is racked. When the finish position is secure, the bar must be walked back into the rack and successfully replaced. Any halt in the upward motion of the whole bar, identified at its position on the back rather than at its ends, constitutes a missed attempt, as does any change in position of the feet against the floor during the squat. Any deliberate attempt to lower the bar counts as an attempt. No more than two spotters are permitted, and they are not allowed to touch the bar during the attempt, which is finished only after the bar is successfully replaced in the racks. The spotters are permitted to steady the racks, and to take the bar if the lifter loses control of it. Any touching of either the bar or the lifter by any spotter invalidates the attempt.

Press Rules

The press is also done from the racks. The bar is held in both hands in front of the neck, taken out of the rack and walked back away from the rack. No contact with the rack is permitted until the bar is replaced in the racks. Once the stance is assumed it cannot change until the lift is completed. The starting position must be upright, with the knees and hips fully extended and the chest up. The bar must be in contact with the top of the shoulders or the chest, whichever individual flexibility permits. After the starting position is correctly assumed, the bar is pressed overhead until the elbows are completely extended, with the bar in a position directly above the ears. Once this position has been attained, the bar is lowered back to the front of the shoulders and walked back into the rack and replaced. Any halt in the upward motion of the bar, identified as the part of the bar between the hands, constitutes a missed attempt, as does any change in the position of the feet against the floor during the attempt, any bending of the knees, or excessive backward lean of the torso as identified by A) the position of the most anterior aspect of the armpit, B) the most posterior aspect of the buttocks, C) the plane formed by a straight line between these two points, and D) the movement of that plane to a position behind the vertical. Any deliberate attempt to raise the bar counts as an attempt. Spotters are not permitted for this lift.

Deadlift Rules

The deadlift is performed with the bar on the platform or floor. The lifter assumes a position facing the bar, with the bar parallel to the lifter's frontal plane. The bar is gripped with both hands, and pulled with one continuous uninterrupted movement until

the lifter is standing erect with knees and hips fully extended, the chest up and shoulders back. Once this position is attained and the bar is motionless, the bar is lowered under control with both hands back to the ground. The bar may not be dropped. Any halt in the upward motion of the bar constitutes a missed attempt, as does failure to assume a fully erect position with both knees and hips extended. Any attempt to raise the bar counts as an attempt. The equipment that can be used is minimal. A belt of any type can be worn but is not required. Knee wraps or sleeves are permitted, but if they are used they must be left on for the entire duration of the session in which the lift is performed—e.g., they must be put on before the squat is warmed up and left in place until the last squat attempt is completed. Wrist wraps are permitted; lifting straps are not.

Any type of footwear may be worn, although a formal contest would require an actual shoe of some type. The shirt should be a close-fitting stretch material, like a t-shirt or a golf shirt, tight enough that the back position can be clearly observed during the press. Close-fitting shorts will allow the bottom position in the squat to be observed. Long pants are not permitted, and neither the shirt nor the shorts can have any supportive characteristics whatsoever. Singlets are not allowed.

The process

Now that we know exactly what we're doing, we need to figure out the best way to do it. For people not used to doing single maximum attempts, some tips on how best to safely do them are in order. After a warm-up, the squat will be performed first. Some squatting with the empty bar should have been included in the general warm-up so that the knees, hips, back, and shoulders are not too terribly surprised. Anyone in a position to attempt a legitimate CrossFit Total should be familiar enough with their capabilities on the lifts to have a fairly good idea of just what might be possible for a one-rep max (1RM). This number is what you warm up intending to do. A meet situation will involve three attempts, and this is a good way to determine a true 1RM.

The first attempt would be a weight you know you can do for a heavy set of three. The second attempt would be a weight you know without any doubt that you could do for a single, having just done the first attempt. And the third attempt is the weight you want to do, based on your performance on the previous two attempts. If you have made a mistake setting your first attempt, the next two will need to be adjusted, but you should

know what you can triple, and this will always be a safe first attempt. And since you know this weight, you know what weights to use to warm up for it: you'll use the lightest weight that you normally start with for your first warm-up when you train, and 90% of the first attempt for the last warm-up, with either three or four relatively even increments in between these two. For instance, warm-ups for a 405-pound first attempt on the squat would be:

135 x 5

185 x 3

225 x 2

275 x 1

325 x 1

365 x 1

After the squat, rest a while (long enough to rest, not long enough to get cold) and follow the same procedure with the press. Since press numbers will be much lighter, the warm-ups will be closer together, and you might choose to use fewer intermediate warm-ups. This is fine, since the squat has provided quite a bit of systemic warmup, if not actual fatigue. After a rest and a drink following the press, the deadlift warm-up might be abbreviated even further, with a heavier first warmup and only two or three intermediate sets before the first attempt.

Done correctly, the CrossFit Total is perhaps our best tool for telling us the things we need to know about a very important aspect of fitness: Strength.

Scoring:

Strength	Crossfit Total	Points
>1200m/>1000w		10
>1100m/>900w		9
>1000m/>800w		8
>900m/>700w		7
>800m/>600w		6
>700m/>500w		5
>600m/>400w		4

>500m/>300w	3
>400m/>200w	2
>300m/>100w	1

Element #4: Flexibility – the ability to maximize the range of motion at a given joint.

Test: Sum of 5 (2 points available for each. In measuring both arms/legs, take the average of both to determine score, out of a possible 2 points.)

Testees should be shoeless for all of these tests.

Flexibility Test A: Trunk Rotation

The purpose of this flexibility test is to measure trunk and shoulder flexibility, which is important for injury prevention and in particular is important in swimming, racquet sports and throwing sports.

equipment required: wall, a piece of chalk or pencil, ruler or [tape measure](#).

description / procedure: Mark a vertical line on the wall. Stand with your back to the wall directly in front of the line, with your feet shoulder width apart. You should be about arms length away from the wall, though you may need to adjust the distance from the wall once you start the test. Extend your arms out directly in front of you so they are parallel to the floor. Twist your trunk to your right and touch the wall behind you with your fingertips, keeping your arms extended and parallel to the floor. You are allowed to turn your shoulders, hips and knees as long as your feet don't move. Mark the position where your fingertips touched the wall, and measure the distance from the line. A point before the line is a negative score and a point after the line is a positive score. Repeat for the left side with your feet in the same position.

scoring: Take the average of the 2 scores (left and right sides). Use the table below to convert the score measurement to a rating.

Ratings	Score	CAT Score
Excellent	20 cm	2.0
Good	15 cm	1.5
Very Good	10 cm	1.0
Fair	5 cm	0.5
Poor	0 cm	0

Flexibility Test B: Groin

purpose: This simple test measures the flexibility in the adductor muscles.

equipment required: ruler or tape measure.

description / procedure: Sit on the floor with your knees bent, and your feet flat on the floor and legs together. Let your knees drop sideways as far as possible keeping your feet together. The soles of your feet should be together and facing each other. Hold on to your feet with both hands, and pull you ankles as close to your body as possible. Measure the distance from your heels to your groin.

scoring: Use the table below to convert the score measurement to a rating.

Ratings	Score	CAT Score
Excellent	5 cm	2.0
Good	10 cm	1.5
Very Good	15 cm	1.0
Fair	20 cm	0.5
Poor	25 cm	0

Flexibility Test C: Shoulder

purpose: To test the flexibility of the shoulder joint, which is important for injury prevention and in particular is important in swimming, racquet sports and throwing sports.

description / procedure: Test your left shoulder by standing with your right arm straight up, then bend your elbow so your hand hangs behind your head. Keeping your upper arm stationary, rest your palm between your shoulder blades. Reach around behind you with your left arm so the palm is facing out and try to touch the fingers of both hands together. Reverse the procedure and repeat with the opposite shoulder.

scoring: measure the minimum distance between hands. See the table below for general guidelines for interpreting the results

RANK	Specifications	CAT Score
Good	Fingers are touching	2.0
Fair	Fingertips are not touching but are less than two inches apart.	1.0
Poor	Fingertips are greater than two inches apart.	0

equipment required: ruler or tape measure.

Flexibility Test D: 90/90 or Active Knee Extension (AKE)

purpose: to assess the range of active knee extension in a position of hip flexion, as required in running and kicking.

equipment required: goniometer with extended arms and spirit level (optional), and a firm table.

description / procedure: The subject lies supine, head back and arms across the chest. The hip is passively flexed until the thigh is vertical (use the spirit level if available). Maintain this thigh position throughout the test, with the opposite leg in a fully extended position. The foot of the leg being tested is kept relaxed, while the leg is actively straightened until the point when the thigh begins to move from the vertical position. The thigh angle at this point is recorded.

measurement: measure the minimum angle of knee flexion with the thigh in the vertical position. The measurement unit is degrees. If the leg is able to be fully straightened, the angle would be recorded as 0. Any degree of flexion will be recorded as a positive number, e.g. 10, 20 degrees etc. In cases where the full knee extension is achieved without thigh movement, the knee is flexed and the thigh is moved to 30 degrees past the vertical position, and the knee again straightened. The angle of knee flexion at which the thigh begins to move is again recorded.

RANK	Specifications	CAT Score
Great	Angle 0	2.0

Good	Angle 10 degrees	1.5
Fair	Angle 20 degrees	1.0
Sub	Angle 30 degrees	0.5
Poor	Angle >30 degrees	0

Flexibility Test E: Posterior Chain

purpose: to assess the ability of the posterior chain musculature to move and flex as a unit, without a particular muscle group (or group thereof) limiting the unit as a whole.

equipment required: goniometer with extended arms

description / procedure: The subject stands with hands on hips, and descends into a squat position slowly, keeping his heels on the ground (barefoot or sock feet only.) Hip angle is measured at the point where the heels rise from the floor using the goniometer.

RANK	Specifications	CAT Score
Great	Angle <45	2.0
Good	Angle 45-75 degrees	1.5
Fair	Angle 75-90 degrees	1.0
Sub	Angle 90-120 degrees	0.5
Poor	Angle >120 degrees	0

Scoring for CAT Test:

Flexibility	SUM of 5	Points
Trunk:		10
Groin:		9
Shoulder:		8
AKE:		7
Pos. Chain:	+	6
	<hr/>	5

=

4
3
2
1

Element #5: Power – the ability of a muscular unit, or combination of muscular units, to apply maximum force in minimum time.

Test: Vertical Jump Test (Sargent Jump)

This procedure describes the method used for directly measuring the height jumped. There are also timing systems that measure the time of the jump and from that calculate the vertical jump height.

equipment required: measuring tape or marked wall, chalk for marking wall (or Vertec or jump mat.)

description / procedure (see also variations below): the athlete stands side on to a wall and reaches up with the hand closest to the wall. Keeping the feet flat on the ground, the point of the fingertips is marked or recorded. This is called the standing reach. The athlete then stands away from the wall, and jumps vertically as high as possible using both arms and legs to assist in projecting the body upwards. Attempt to touch the wall at the highest point of the jump. The difference in distance between the standing reach height and the jump height is the score. The best of three attempts is recorded.

scoring: The jump height is usually recorded as a distance score. The table below provides a ranking scale for adult athletes based on my observations, and will give a general idea of what is a good score. For more information, see a selection of vertical jump test results. It is also possible to convert vertical jump height into a power or work score.

rating	males (inches)	males (cm)	females (inches)	females (cm)
excellent	> 28	> 70	> 24	> 60
very good	24 - 28	61-70	20 - 24	51-60
above average	20 - 24	51-60	16 - 20	41-50
average	16 - 20	41-50	12 - 16	31-40
below average	12 - 16	31-40	8 - 12	21-30
poor	8 - 12	21-30	4 - 8	11-20

very poor

< 8

< 21

< 4

< 11

Scoring for CAT Test:

Power	Vertical Jump	Points
> 70	> 60	10
61-70	51-60	9
51-60	41-50	8
41-50	31-40	7
31-40	21-30	6
21-30	11-20	5
< 21	< 11	0
MALE(cm)	FEMALE(cm)	0
		0
		0

Element #6: Speed – the ability to minimize the time cycle of a repeated movement.

Test: The 40 Yard Dash

purpose: The aim of this test is to determine acceleration, and also a reliable indicator of speed, agility and quickness.

equipment required: [measuring tape](#) or marked track, [stopwatch](#) or [timing gates](#), [cone markers](#), flat and unobstructed grass, track, or turf surface of at least 60 yards.

description / procedure: The test involves running a single maximum sprint over 40 yards, with the time recorded. A thorough warm up should be given, including some practice starts and accelerations. Start from a comfortable stationary 3-point stance position, a position that is most familiar to you and that you think will yield the best time. The front foot must be on or behind the starting line. This starting position should be held for 3 seconds prior to starting, you may lean across the starting line, and no rocking movements are allowed. The tester should provide hints to maximizing speed and encouragement to continue running hard past the finish line.

40 yard Sprint Scores (general guidelines)	
College Footballers	4.6 - 4.9 secs
High School Footballers	4.9 - 5.6 secs
Recreational College athletes (male)	~5.0 secs
Recreational College athletes (female)	~5.8 secs

results: Two trials are allowed, and the best time is recorded to the nearest 2 decimal places. The timing starts from the first movement (if using a stopwatch) or when the timing system is triggered, and finishes when the chest crosses the finish line and/or the finishing timing gate is triggered.

target population: football and other sports in which speed over that distance is important

comments: 40 yards is 36.58 meters.

Scoring for CAT Test:

Speed	40yd Dash	Points
<4.0	4.1-4.5	10
4.1-4.5	4.6-5.0	9
4.6-5.0	5.1-5.5	8
5.1-5.5	5.6-6.0	7
5.6-6.0	6.1-6.5	6
6.1-6.5	6.6-7.0	5
6.6-7.0	7.1-7.5	4
7.1-7.5	7.6-8.0	3
7.6-8.0	8.1-9.0	2
8.1-9.0	9.1-10.0	1
MALE(s)	FEMALE(s)	

Element #7: Agility – the ability to minimize transition time from one movement to another.

Test: Dot Drill

First conceived by basketball coach Adolph Rupp in the 1940's, and then later popularized by Bigger Faster Stronger Inc. a few decades later, the dot drill is both a remarkable agility, foot strength, and anaerobic conditioning exercise, as well as a superb and easy-to-administer testing tool.

It is unique in that it creates not only a high level of fatigue, but also a high quality of fatigue, making agility tougher. Agility has also been described as the time necessary to move from one direction of movement to another at full speed; the Dot Drill is nothing more complicated than that.

The dot drill is a battery of 5 separate drills, performed in rapid succession, with each drill performed six times in a row before proceeding to the next drill (please refer to the diagram as you read the description).

Dot Drill Schematic

1

The dot drill features (5), five-inch diameter dots orientated in a pattern similar to the five dots on a pair of dice, expect that the "square" is three feet by two feet. Use a solid surface such as weight room matting, and tie your shoelaces. Tight.

Begin the drill as follows:

First drill: Starting position: your left foot is on "A" and your right foot on "B." Hop forward and touch "C" with both feet simultaneously, then continue forward so that your left foot lands on "D" at the same instant your right foot lands on "E." (a total of 2 hops). Now go back to the starting position by reversing what you just did (hopping backward). That's one rep. Repeat for a total of six reps.

Second drill: From the starting position, lift your left foot in the air and with right foot only, hop to "C," "E," "D," "C," "A," and back to "B." That's one rep. Repeat for a total of six reps.

Third drill: Repeat the last drill but using the left foot only (hop to "C," "E," "D," "C," "A," and back to "B.") That's one rep. Repeat for a total of six reps.

Fourth drill: Repeat the last drill but using both feet, keeping the feet together- this looks somewhat like a skiing drill. Repeat for a total of six reps.

Fifth drill: This is very similar to drill number one, with a slight variation: When you reach the top of the pattern (left foot on "D" and your right foot on "E."), instead of hopping backward to get back to the starting position, you instead jump-spin and land on the same two dots (only now your left foot will be on "E" and your right foot on "D."), facing the opposite direction. Then hop forward and touch "C" with both feet simultaneously, then continue forward so that your left foot lands on "B" and your right foot on "A." Lastly, jump-spin again to assume the starting position. That's one rep. Repeat for a total of six reps.

Errors: Subtract .10 seconds for every missed dot from the total time.

TABLE 1
BFS Dot Drill Standards

Agility	Dots Drill	Points
<40	<45	10
40-44	45-49	9
45-49	50-54	8
50-54	55-59	7
55-59	60-64	6
60-64	65-69	5
65-69	70-74	4
70-74	75-79	3
75-79	80-84	2
80-84	85-90	1
MALE(s)	FEMALE(s)	

Element #8: Balance – the ability to control the placement of the body’s centre of gravity in relation to its support base.

Test: Stork Balance Stand Test

purpose: To assess the ability to balance on the ball of the foot.

equipment required: flat, non-slip surface, [stopwatch](#), paper and pencil.

description / procedure: Remove the shoes and place the hands on the hips, then position the non-supporting foot against the inside knee of the supporting leg. The subject is given one minute to practice the balance. The subject raises the heel to balance on the ball of the foot. The stopwatch is started as the heel is raised from the floor. The stopwatch is stopped if any of the follow occur:

- 2 the hand(s) come off the hips
- 3 the supporting foot swivels or moves (hops) in any direction
- 4 the non-supporting foot loses contact with the knee.
- 5 the heel of the supporting foot touches the floor.

Rating	Score (seconds)	CAT Score
Excellent	> 50	10
	45-49	9
Good	40-44	8
	35-39	7
Average	30-34	6
	25-29	5
Fair	20-24	4
	15-19	3
Poor	10-14	2
	5-9	1

Scoring: The total time in seconds is recorded. The score is the best of three attempts.

Element #9: Body Composition – the maintenance of lean muscle tissue and a low bodyfat percentage.

Test: Skinfold Measurement

description / procedure: Estimation of body fat by skinfold thickness measurement. Measurement can use from 3 to 9 different standard anatomical sites around the body. The right side is usually only measured (for consistency). The tester pinches the skin at the appropriate site to raise a double layer of skin and the underlying adipose tissue, but not the muscle. The calipers are then applied 1 cm below and at right angles to the pinch, and a reading in millimeters (mm) taken two seconds later. The mean of two measurements should be taken. If the two measurements differ greatly, a third should then be done, then the median value taken.

results: Because of the increased errors involved, it is usually not appropriate to convert skinfold measures to percentage body fat (%BF). It is best to use the sum of several sites to monitor and compare body fat measures. In order to satisfy those who want to calculate a percentage body fat measure, there is a sample of equations for calculating this here. Below is a table of general guidelines for using total sum (in millimeters) of the seven main skinfold sites ([tricep](#), [bicep](#), [subscap](#), [supraspinale](#), [abdominal](#), [thigh](#), [calf](#))

		Excellent	good	average	Below average	poor
Normal	Male	60-80	81-90	91-110	111-150	150+
	Female	70-90	91-100	101-120	121-150	150+
Athletic	Male	40-60	61-80	81-100	101-130	130+
	Female	50-70	71-85	86-110	111-130	130+

equipment required: skinfold calipers (e.g. Harpenden, Holtain, Slimslide, Lange). These should be calibrated for correct jaw tension and gap width.

target population: suitable for all populations, though it is sometimes difficult to get reliable measurements with obese people.

CAT Scoring: sum of skinfolds (mm)

Body Composition	Points
------------------	--------

41-50	50-60	10
51-60	61-70	9
61-70	71-80	8
71-80	81-95	7
81-90	96-110	6
91-100	111-125	5
101-110	126-140	4
111-120	141-155	3
121-130	156-170	2
131-150	171-190	1
MALE(mm)	FEMALE(mm)	

Element #10: Coordination – the ability to combine several distinct movement patterns into a single movement.

Test: Skipping.

The client performs a simple two-foot skip with a jump rope (leather or vinyl, not cotton.) They're timed. Any stoppage of the rope results in a stop of the clock. Clients are allowed two attempts.

CAT Score:

Coordination	Skipping	Points
<10mins		10
9-10mins		9
8-9mins		8
7-8mins		7
6-7mins		6
5-6mins		5
4-5mins		4
3-4mins		3
2-3mins		2
1-2mins		1

Aerobic	O'Neill	Points	Stamina	Tabata SQ/PU	Points
Excellent		10	>45	>40	10
Very Good		9	40-45	35-39	9
Good		8	35-39	30-34	8
Above					
Average	7	30-34	25-29		7
Average			25-29	20-24	6
Below					
Average	5	20-24	15-19		5
Below					
Average - 100	4	15-19	10-14		4
Below					
Average - 200	3	10-14	5-9		3
Below					
Average - 300	2	5-9	1-4		2
Below					
Average - 400	1	1-4			1
			MALE(reps)	FEMALE(reps)	
Strength	Crossfit Total	Points	Flexibility	SUM of 5	Points
>1200m/>1000w	10				10
>1100m/>900w	9	Trunk:			9
>1000m/>800w	8	V-Sit:			8
>900m/>700w	7	Shoulder:			7
>800m/>600w	6	AKE:			6
>700m/>500w	5	Pos. Chain:	+		5
>600m/>400w	4		=		4
>500m/>300w	3				3
>400m/>200w	2				2
>300m/>100w	1				1
Power	Vertical Jump	Points	Speed	40yd Dash	Points
> 70	> 60	10	<4.0	4.1-4.5	10
61-70	51-60	9	4.1-4.5	4.6-5.0	9
51-60	41-50	8	4.6-5.0	5.1-5.5	8
41-50	31-40	7	5.1-5.5	5.6-6.0	7
31-40	21-30	6	5.6-6.0	6.1-6.5	6
21-30	11-20	5	6.1-6.5	6.6-7.0	5
< 21	< 11	0	6.6-7.0	7.1-7.5	4
	FEMALE(c				
MALE(cm)	m)	0	7.1-7.5	7.6-8.0	3
		0	7.6-8.0	8.1-9.0	2
		0	8.1-9.0	9.1-10.0	1
			MALE(s)	FEMALE(s)	

Coordination	Skipping	Points	Agility	Points
>10mins		10	<40	<45
9-10mins		9	40-44	45-49
8-9mins		8	45-49	50-54
7-8mins		7	50-54	55-59
6-7mins		6	55-59	60-64
5-6mins		5	60-64	65-69
4-5mins		4	65-69	70-74
3-4mins		3	70-74	75-79
2-3mins		2	75-79	80-84
1-2mins		1	80-84	85-90
<1min		0	MALE(s)	FEMALE(s)

Balance	Stork Test	Points	Body Composition	Points
> 50		10	41-50	50-60
45-49		9	51-60	61-70
40-44		8	61-70	71-80
35-39		7	71-80	81-95
30-34		6	81-90	96-110
25-29		5	91-100	111-125
20-24		4	101-110	126-140
15-19		3	111-120	141-155
10-14		2	121-130	156-170
5-9		1	131-150	171-190
0-5		0	MALE(mm)	FEMALE(mm)



The Catalyst Food Guide

The 4-Level Eating System

Quality, Consistency, Quantity

Level #1: Eating REAL food

Eat meat and vegetables, nuts and seeds, some fruit, some milk, few starches and no sugar.

What qualifies as *real* food? Well, real food goes bad. Real food has an expiry date. Real food doesn't have a list of ingredients. Real food is largely found around the perimeter of the grocery store – not in the middle aisles.

Before you embark on the more technical parts of this journey, we'd like you to switch to real food for 12 days. Why 12, and not 15? There's no magic number – we'd like you to start on Monday, eat well for a week, survive the weekend, and then practice for another. Frankly, by the time you hit Sunday, you'll already feel the benefits. Most of our culture's issues with food come not from overeating – by food volume, that is – but by consuming too many carbohydrates. For more information, read *Enter The Zone* by Barry Sears. And more information in Level #2 as well. Level #1 is not just for beginners. It's simple, but it's not easy. That said, many of our top – and leanest – athletes survive just fine at Level 1 only, without ever weighing and measuring food.



For 12 days, then, eat only things that appear on this list, including condiments, flavourings (like sugar and salt) and 'side dishes.' Don't worry if it tastes bland at first – your taste buds have been deconditioned to subtlety, and by next week, you'll really enjoy everything more.

Protein

Meat and Poultry

Beef (range fed or game)
Chicken breast, skinless
Ground beef (Less than 10% fat)

Lean Canadian Bacon
Turkey breast, skinless
Turkey breast, delistyle.

Turkey, ground
Turkey bacon

Beef (lean cuts)
Chicken,
Corned beef, lean
Duck
Ham

Lamb, lean
Pork, lean
Pork Chop
Turkey bacon
Turkey, skinless, dark meat
Veal

Fish and Seafood

Bass (freshwater)

Bluefish
Calamari
Cod
Clams
Haddock
Halibut
Lobster
Salmon
Sardines
Scallops
Snapper
Swordfish
Shrimp

Trout
Tuna (steak)

Carbohydrates

Low Density Carbohydrates

Artichoke
Artichoke Hearts
Asparagus
Beans, green or wax
Beans, black
Bok choy

Broccoli
Brussel sprouts
Cabbage
Cauliflower
Chickpeas
Collard greens
Eggplant
Hummus
Kale
Kidney beans
Leeks
Lentils
Mushrooms (boiled)
Onions, chopped (boiled)
Okra, sliced
Spaghetti squash
Spinach
Swiss chard
Turnip
Turnip greens
Yellow squash
Zucchini

Alfalfa sprouts
Bamboo shoots

Broccoli

Cauliflower pieces
Celery, sliced
Chick peas
Cucumber
Green or red peppers

Lettuce, iceberg
Lettuce, romaine
Mushrooms
Onions, chopped
Radishes

Snow peas
Spinach

spinach
tomato

Tuna, canned in water

Egg whites
Egg substitute

Whole egg

Cheese, nonfat
Cottage cheese, lowfat
Cheese, lowfat
Mozzarella cheese, skim
Ricotta cheese, skim

Hard cheeses

Fat

Almond butter
Almond oil
Almonds
Avocado
Cashews
Guacamole
Macadamia nut
Olives
Olive oil
Peanuts

Pistachios
Sesame oil

Walnuts

Tossed salad
Water chestnuts

Fruits

Apple
Applesauce (unsweetened)
Apricots
Blackberries
Blueberries
Boysenberries
Cherries
Grapes
Grapefruit
Kiwi
Lemon
Lime
Nectarine
Orange
Orange, Mandarin
Peach
Pear
Plum
Raspberries
Strawberries
Tangerine
Carrot

Lima beans
Parsnips
Peas
Potato

Sweet potato

Banana
Cantaloupe
Cranberries
Dates
Honeydew melon
Mango, sliced
Papaya
Pineapple,
Prunes
Raisins
Watermelon

Level #2 – Food Combinations

Now we're concerned not just with quality of food, but also quantity. In the same way that we coach exercise, we want to move from solid technique to consistency to virtuosity.

Many may never go past Level #2, and that's fine. For most people, it's enough. Luckily, it's easy: just have **a protein at every meal, a vegetable every time you have a protein, and a little fat too** (choose from the healthy fats in the list above.) How much? A bit.

A good rule of thumb (well, the whole hand):

Eat a protein the same size as your palm. Don't worry if you have smaller or larger hands – this scales nicely.

Follow with a vegetable serving the size of your whole hand, from wrist to fingertip.

Finally, add a half-handful of nuts, or a teaspoon of oil– remember, FAT doesn't make you fat. Bad carbohydrate makes you fat. As a guide, eat a serving the size of your thumb, from wrist to tip. Simple.

If you want to get really specific – *How much? When?* Then skip to Level #3: The Zone Diet.



Level #3 – the Zone Diet

The primary goal is to balance two hormones, glucagon and insulin. Both are critical to human life, and they're both positive. Out of balance, though, we get a ton of problems: insulin insensitivity (diabetes,) inflammation disorders (heart disease,) decreased alertness, obesity, stress, and a whole host of other nasty stuff.

The goal of the Zone is to maintain that insulin/glucagon balance. You don't need to be a biochemist to understand the two:

- 1) Insulin is a storage hormone. Any blood sugar left in the bloodstream is bulldozed by insulin, either to muscles (if they want it, as in after a hard workout) or the fat cell, for use later. But for many, later never comes.....
- 2) Glucagon is a mobilization hormone. It takes energy from fat and muscle cells and delivers it to where it's needed. But too much glucagon means that too much glucose (energy) is pulled into the bloodstream, triggering an insulin release to maintain balance. It's a catch-22.

*Cat
aly
st
Die
t*

*We
ekl
y
Tra
cki Zon
ng e
She Bloc
et ks*

MONDAY			TUESDAY			WEDNESDAY			THURSDAY			FRIDAY
C	P	F	C	P	F	C	P	F	C	P	F	C
Meal #1			Meal #1			Meal #1			Meal #1			Meal #1
7:00			7:00			7:00			7:00			7:00
Meal #2			Meal #2			Meal #2			Meal #2			Meal #2
10:00			10:00			10:00			10:00			10:00
Meal #3			Meal #3			Meal #3			Meal #3			Meal #3
12:00			12:00			12:00			12:00			12:00
Meal #4			Meal #4			Meal #4			Meal #4			Meal #4
3:00			3:00			3:00			3:00			3:00
Meal #5			Meal #5			Meal #5			Meal #5			Meal #5
6:00			6:00			6:00			6:00			6:00
Meal #6			Meal #6			Meal #6			Meal #6			Meal #6
8:30			8:30			8:30			8:30			8:30
0	0		0	0	0	0	0	0	0	0	0	0
0												
SATURDAY			SUNDAY									
C	P	F	C	P	F							
Meal #1			Meal #1									
7:00			7:00									
Meal #2			Meal #2									
10:00			10:00									
Meal #3			Meal #3									
12:00			12:00									
Meal #4			Meal #4									
3:00			3:00									
Meal #5			Meal #5									
6:00			6:00									
Meal #6			Meal #6									
8:30			8:30									

Given the two, and the current state of ridiculous obesity in our culture, would you say that we have a STORAGE problem, or MOBILIZATION problem? STORAGE, 100%. We're overstimulating insulin. And what stimulates insulin? Only carbohydrates. Good carbohydrates, like vegetables, stimulate the release of insulin at a reasonable levels. Others, like breads, pastas, grains, and some fruit, overstimulate the release of insulin, putting too much in the bloodstream and tipping the scales. Scales? More like roller-coaster. Protein intake will help dull this response. Fat intake is neither here nor there; it doesn't cause the secretion of insulin OR glucagon. However, it will slightly dull the effect of a high-carb meal on blood sugar levels.

Using the lists above, here are the Zone blocks that correspond to each food. Amounts listed are each 1 block.

Meat and Poultry

Best Choices (low in saturated fat)

Beef (range fed or game) 1 oz.
 Chicken breast, skinless 1 oz.
 Chicken breast, delistyle, 1 1/2 oz.
 Ground beef (Low fat) 1 1/2 oz.
 Lean Canadian Bacon 1 1/2 oz.
 Turkey breast, skinless 1 oz.
 Turkey breast, delistyle. 1 1/2 oz.
 Turkey, ground 1 1/2 oz.
 Turkey bacon 3 strips

Fair Choices (moderate in saturated fat)

Beef (lean cuts) 1 oz.
 Chicken, skinless, dark
 Meat
 Corned beef, lean 1 oz.
 Duck 1 1/2 oz.
 Ham, lean 1 oz.
 Ham, delistyle 1 1/2 oz.
 Lamb, lean 1 oz.
 Pork, lean 1 oz.
 Pork Chop 1 oz.
 Turkey bacon 3 slices
 Turkey, skinless, dark meat 1 oz.
 Veal 1 oz.

Poor Choices (high in saturated fat, Arachidonic Acid, or both)

Bacon, pork 3 1/2 slices
 Beef, fatty cuts* 1 oz.
 Beef, ground (>10% fat) 1 1/2 oz.
 Hot dog, beef or pork 1 link
 Hot dog, chicken or turkey 1 link
 Pepperoni 1 oz.
 Salami 1 oz.
 Sausage, pork 2 links
 Sausage, pork 2 patties
 *Arachidonic Acid

Fish and Seafood

Bass (freshwater) 1 oz.
 Bass (sea) 1 1/2 oz.

Low Density Carbohydrates

(Best Choices)

Cooked Vegetables

Artichoke 4 large
 Artichoke Hearts 1 cup
 Asparagus (12 spears) 1 cup
 Beans, green or wax 1 1/2 cups
 Beans, black 1/4 cup
 Bok choy 3 cups
 Broccoli 3 cups
 Brussel sprouts 1 1/2 cups
 Cabbage 3 cups

Cauliflower 4 cups
 Chickpeas 1/4 cup

1 oz. Collard greens 2 cups
 Eggplant 1 1/2 cups
 Hummus 1/4 cup

Kale 2 cups

Kidney beans 1/4 cup
 Leeks 1 cup

Lentils 1/4 cup

Mushrooms (boiled) 2 cups

Onions, chopped (boiled) 1/2 cup
 Okra, sliced 1 cup
 Sauerkraut 1 cup

Spaghetti squash 2 cups

Spinach 3 1/2 cups

Swiss chard 2 1/2 cups

Turnip, mashed 1 1/2 cups

Turnip greens 4 cups

Yellow squash 2 cups

Zucchini 2 cups

Raw Vegetables

Alfalfa sprouts 10 cups

Bamboo shoots 4 cups

Bean sprouts 3 cups

Broccoli 4 cups

Cabbage, shredded 4 cups

Cauliflower pieces 4 cups

Celery, sliced 2 cups

Bluefish 1 1/2 oz.
Calamari 1 1/2 oz.
Catfish 1 1/2 oz.
Cod 1 1/2 oz.

Clams 1 1/2 oz.
Crabmeat 1 1/2 oz.
Haddock 1 1/2 oz.
Halibut 1 1/2 oz.
Lobster 1 1/2 oz.
Salmon* 1 1/2 oz.
Sardines* 1 oz.
Scallops 1 1/2 oz.
Snapper 1 1/2 oz.
Swordfish 1 1/2 oz.
Shrimp 1 1/2 oz.

Trout 1 1/2 oz.
Tuna (steak) 1 oz.
Tuna, canned in water 1 oz.
*Rich in EPA

Eggs

Best Choices

Egg whites 2

Egg substitute 1/4 cup

Fair Choices

Whole egg* 1

*Arachidonic Acid

Protein-Rich Dairy

Best Choices

Cheese, nonfat 1 oz.

Cottage cheese, lowfat 1/4 cup

Fair Choices

Cheese, lowfat 1 oz.

Mozzarella cheese, skim 1 oz.

Ricotta cheese, skim 2 oz.

Poor Choices

Hard cheeses 1 oz.

Mixed Protein / Carbohydrate (Contain 1 block protein and 1 block carbohydrate)

(use in moderation)

Milk, lowfat(1%) 1 cup

Chick peas 1/4 cup
Cucumber, sliced 4 cups
Endive, chopped 10 cups
Escarole, chopped 10 cups
Green or red peppers 2
Green or red peppers, chopped 2 cups
Jalapeño peppers 2 cups
Lettuce, iceberg 2 heads
Lettuce, romaine, chopped 10 cups
Mushrooms, chopped 4 cups
Onions, chopped 1 1/2 cup
Radishes, sliced 4 cups
Salsa 1/2 cup
Snow peas 1 1/2 cups
Spinach 20 cups
Spinach Salad (3 cups raw
spinach, 1/2 raw onion, and 1 raw
tomato)1
Tomato 2
Tomato, cherry 2 cups
Tomato, chopped 1 1/2 cups
Tossed salad (3 cups shredded
lettuce, 1/2 raw green pepper, and 1
raw tomato)1
Water chestnuts 1/3 cup
Water cress 10 cups

Fruits

Apple 1/2

Applesauce (unsweetened) 1/3 cup

Apricots 3

Blackberries 3/4 cup

Blueberries 1/2 cup

Boysenberries 1/2 cup

Cherries 8

Fruit cocktail (light) 1/3 cup

Grapes 1/2 cup

Grapefruit 1/2

Kiwi 1

Lemon 1

Lime 1

Nectarine 1/2

Orange 1/2

Orange, Mandarin, canned in water 1/3 cup

Peach 1

Peaches, canned in water 1/2 cup

Pear 1/2

Plum 1

Raspberries 1 cup

Strawberries 1 cup

Tangerine 1

High Density Carbohydrates

Cooked Vegetables

Acorn squash 1/2 cup

Soy milk 8 oz.
Soy Flour 10 grams
Yogurt, plain 1/2 cup
Tempeh 1 1/2 oz.

Fat

Best Choices (rich in monounsaturated fat)

Almond oil 1/3 tsp.
Almonds (slivered)
Almonds (whole) 1 tsp.

Avocado 1 tbsp.
Cashews 2
Guacamole 1 tbsp
Macadamia nut 1
Olives 3
Olive oil 1/3 tsp.
Olive oil and vinegar dressing 1/3 tsp
olive oil plus vinegar to taste
Peanuts 6
Peanut butter, natural 1/2 tsp.
Peanut oil 1/3 tsp.
Pistachios 3
Almond butter 1/2 tsp.
Sesame oil 1/3 tsp.
Tahini 1/2 tsp.

Fair Choices (low in saturated fat)

Canola oil 1/3 tsp.
Mayonnaise, regular 1/3 tsp.
Mayonnaise, light 1 tsp.
Sesame oil 1/2 tsp.
Soybean oil 1/3 tsp.
Walnuts, shelled and chopped 1/2 tsp.

Poor Choices (high in saturated fat)

Bacon bits, imitation 2 tsp.
Butter 1/3 tsp.
Cream (half and half) 1/2 tbsp.
Cream cheese 1 tsp.
Cream cheese, light 2 tsp.
Lard 1/3 tsp.
Sour cream 1/2 tbsp.
Sour cream, light 1 tbsp.
Vegetable shortening 1/3 tsp.

Beans, baked 1/4 cup
Beans, refried 1/4 cup
Beets, sliced 1/2 cup
Butternut squash 1/2 cup
Carrot 1
Carrots, sliced 1 cup
Carrots, shredded 1 cup
Corn 1/4 cup

Lima beans 1/4 cup
Parsnips 1/3 cup

Peas 1/2 cup
Pinto beans 1/4 cup

Potato, baked 1/4 cup
Potato, boiled 1/3 cup
Potato, mashed 1/4 cup
Sweet potato, baked 1/3 cup
Sweet potato, mashed 1/4 cup

Fruits

Banana 1/3
Cantaloupe 1/4 melon
Cantaloupe, cubed 3/4 cup
Cranberries 3/4 cup
Cranberry sauce 3 tsp
Dates 2
Fig 1
Guava 1/2 cup
Honeydew melon, cubed 2/3 cup
Kumquat 3
Mango, sliced 1/3 cup
Papaya, cubed 3/4 cup
Pineapple, diced 1/2 cup
Prunes, dried 2
Raisins 1 tbsp
Watermelon, cubed 3/4 cup

Fruit Juices

Apple 1/3 cup
Apple cider 1/3 cup
Cranberry 1/4 cup
Fruit punch 1/4 cup
Grape 1/4 cup
Grapefruit 1/3 cup
Lemonade, unsweetened 1/3 cup
Lime 1/3 cup
Orange 1/3 cup
Pineapple 1/4 cup
Tomato 1 cup
V8 3/4 cup

Level #4 – Competitive

We call this the ‘competitive’ level because it requires an attention to detail – and strict habits – that aren’t sustainable by most for long periods. A month on Paleo? Great. Intermittent fasting? Once a year isn’t bad. But more often is pretty tough to attain, sometimes distracting, and socially limiting. Like with exercise, we weigh the cost/benefit ratio, and for most, it’s too much for long periods.

Occasionally, it may be necessary to personally tailor a food plan, including macronutrient breakdowns and specific food choices. As your Trainer for a referral if this is the case.



On the CrossFit Sickness – Wellness – Fitness continuum, it’s helpful to aim for a high level because failure still means a good result. The classic cliché of shooting for the moon and landing among the stars holds true: even if you’re not 100% fit, you still have farther to fall to become chronically ill or weak.

With this guide, our goal is to approach Nutrition along the same continuum: eat good food, in balanced proportions 80% of the time, and you’ll be okay. Eat better, and you’ll do better; eat at a more ‘elite’ level, and you’ll have farther to fall when you do slip (and everyone does.) But shooting for ‘perfection or nothing’ – as advocated by so many pulp-fiction diets, is self-defeating. Unfortunately, on a calorie-based diet, the 80% rule doesn’t apply – 20% overeating will still cause weight gain. On this system, if you’re a Level 3 eater, a big slip-up may mean only poor carbohydrate choices (but still balancing them with protein and healthy fat) or an unbalanced macronutrient intake (you didn’t have a healthy fat with your meal.) As Barry Sears, author of The Zone Diet, is fond of saying, “if you slip up, don’t worry about it: you can be back in the optimal Zone at your next meal.”

Some perspective is necessary here: our culture revolves around the sharing of food. If birthday cake is inevitable, cut carbs out of your dinner, eat the protein and healthy fat, and eat a smaller piece of cake. Is that the 100% best choice? Of course not. Is a Spartan lifestyle enjoyable? No. Great abs are wonderful, but avoiding a social life for fear or raising your bodyfat above 7% is disordered thinking. Shoot for 100%, but don’t be unhappy when you achieve 80%. Don’t let yourself off easy – limit your donut intake, of course – but use common sense: if you shoot for ‘excellent,’ you’ll finish ahead; if you shoot for mediocrity, you’ll lose ground.

In any case, if you slip, start again as soon as possible. There is NO perfect time. If lunch was full of bad choices, don’t treat the day as a write-off; start fixing your metabolism at your 3pm snack. ‘Tomorrow’ is the enemy of nutrition.

A Final Note: How To Get Started

If you're new to this type of exercise – short, intense, complex movement – you're likely to ask, 'how should I eat before a workout?' And that's a great question. While many workout plans in the past have paired diet with exercise, the Catalyst and CrossFit method completely intertwines what you eat with how well you perform.

If you're like most of us, you've never been called an 'athlete' before. However, it helps to eat as if you're preparing for a contest, because it's true: you're competing with your former self. When the coach starts their countdown before a challenge, you're facing off against the person you were when you walked in the door. And if you're prepared, you'll win.

First off, blood sugar levels are your most critical point of maintenance. If you enter the workout on an empty stomach, there will be a gap between when you drain yourself of chemical energy in the blood (glucose) and when you're able to break down more energy from the muscle or fat cell. During this gap, your blood sugar level will be very low (don't worry, you'll get better at buffering the effect as you go.) This may mean that you feel slightly dizzy, or even nauseous.

To bridge that gap, or protect against it occurring, eat a meal balanced in protein, carbohydrate, and fat about 90 minutes pre-workout. How do you judge? Just like you will in Level II: use your hand. Eat a protein the size of your palm, a vegetable serving the size of your open hand (wrist to fingertip,) and a little fat – a teaspoon of olive oil or fish oil, or a few almonds. Drink a big glass of water. If you're a rookie, bring some orange juice with you to help recover blood sugar levels if they do take a plunge later.

Try eat at least five small meals per day, with a little protein at each. This will help moderate blood sugar / insulin levels through the day. When you're doing it properly, you'll notice that you feel hungry but alert – instead of hungry and tired – just before mealtime.

It will take, on average, about two weeks before you've built up enough fat-metabolizing enzymes to break down fat for fuel consistently. Our elite performers are so fast at breaking down fats and sugars that they do so when they're operating at full intensity – they don't feel sick or dizzy during workouts. They don't run out of energy. They may stop and recover briefly, but then they go full-out again.

To the person on the street, these folks may appear to be genetically blessed with a 'fast metabolism.' However, they – and soon you – know the truth: that metabolism is made, not born, and can be trained to be as fast as the leanest person on earth.

Food Log

Week :

Day 1

Meal #1:

Blocks:

Comments:

Meal #2:

Blocks:

Comments:

Meal #3:

Blocks;

Comments:

Meal #4:

Blocks:

Comments;

Meal #5:

Blocks:

Comments:

Day 2

Meal #1:

Blocks:

Comments:

Meal #2:

Blocks:

Comments:

Meal #3:

Blocks;

Comments:

Meal #4:

Blocks:

Comments;

Meal #5:

Blocks:

Comments:

Day 3

Meal #1:

Blocks:

Comments:

Meal #2:

Blocks:

Comments:

Meal #3:

Blocks;

Comments:

Meal #4:
Blocks:
Comments;

Meal #5:
Blocks:
Comments:

Day 4
Meal #1:
Blocks:
Comments:

Meal #2:
Blocks:
Comments:

Meal #3:
Blocks;
Comments:

Meal #4:
Blocks:
Comments;

Meal #5:
Blocks:
Comments:

Day 5
Meal #1:
Blocks:
Comments:

Meal #2:
Blocks:
Comments:

Meal #3:
Blocks;
Comments:

Meal #4:
Blocks:
Comments;

Meal #5:
Blocks:
Comments:

Day 6
Meal #1:
Blocks:
Comments:

Meal #2:
Blocks:

Comments:

Meal #3:

Blocks;

Comments:

Meal #4:

Blocks:

Comments;

Meal #5:

Blocks:

Comments:

Day 7

Meal #1:

Blocks:

Comments:

Meal #2:

Blocks:

Comments:

Meal #3:

Blocks;

Comments:

Meal #4:

Blocks:

Comments;

Meal #5:

Blocks:

Comments: