



Injury Recall Technique: A Comprehensive Approach to Balancing the History of Pain & Injury

By Adam Lehman, En.K.

Introduction

You've all experienced it. Sometimes it's brief and gone, other times it lingers and lasts for an uncomfortably long time on a daily basis. Sometimes you know what's causing it, other times perhaps not. It's unpleasant, disrupts your ability to function both physically and mentally, alters your mood (thereby affecting your relationships with others, as well as, your own happiness) and forces you to do things differently than you otherwise might – sometimes due to the thing itself, sometimes as a strategy of avoidance due to the fear of it.

What is this life altering “it?”

P A I N

Pain is so pervasive that it is one of the major considerations in identifying one's overall state of health and wellbeing. “If only I wasn't in pain...” Absence of pain certainly makes a difference!

But here's something you may not have considered – just because you're not in pain and the injuries and experiences you've had that caused pain in the past have healed, it doesn't mean that they are no longer having an effect on your body! In fact, your old pains and injuries may be causing problems on a broad systemic level that you would never consider to be related, especially, if you think you've healed from past issues.

Let's have a look at how pain works neurologically.

Nociception

Nociception is the neurological processing of stimuli that is then translated consciously and subconsciously as pain and discomfort. The signal is generated by nociceptors – nerve receptors with free endings that detect a variety of stimuli and then travel along the peripheral and central nervous systems to your brain, where it is interpreted subjectively as pain.

There are 3 main types of stimuli that activate nociceptors – mechanical (pressure), thermal (hot/cold) and chemical (usually stimulated internally, such as by histamines and involving inflammation). The highest concentration of them is near the surface of the skin, with free nerve endings available to interpret the huge amount of outside stimulus we experience on an on-going basis. But they also exist in the tissue linings of our organs, linings of our joints and other similar internal surface structures. As is typical of the nervous system, they have to reach a certain threshold in order to fire and send their signal along to the central nervous system (CNS) to get to the brain so that we actually “experience” them.

The type of pain you experience can actually help determine what the causal stimulus is. The words people use to describe their pain often are metaphorical, offering clues to the cause. For example, when someone says they are experiencing “stabbing, pounding or grabbing” pain, then mechanical nociceptors are likely being activated. This usually includes vascular aspects, with throbbing, dilating blood vessels stimulating the receptor nerves along their walls, sending along their above threshold signals.

Chemical pain is often described as “hot, searing, burning” pain. This lets you know there’s inflammation involved, pinching nerves due to a chemical response by the body, such as a histamine allergy response or toxic buildup such as lactic acid from muscle fatigue. This often requires outside agents, such as Essential Fatty Acids (EFAs – Omega 3 and 6 fats) to stimulate the body’s own anti-inflammatory response and tone down the pain. This might take a little longer than relieving mechanical pain, where you can often release the pressure of the mechanical stimulus that is causing the throbbing more easily.

When someone’s in pain, you can learn a lot right off the bat by asking them if it’s a throbbing pain, or does it burn?

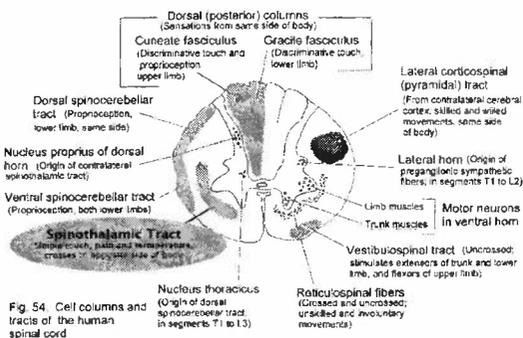
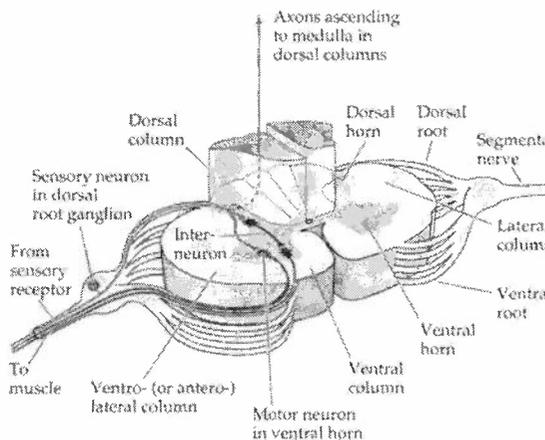


Fig. 54. Cell columns and tracts of the human spinal cord

The Brain Trip

Once nociceptors fire, they head to the CNS via the dorsal root ganglion. Generally speaking, once in the CNS, they go straight up a level or two, cross over and continue the journey along the anterolateral system, along the spinoreticular/spinothalamic tracts, through higher up reticular formations and to the thalamus – the signal-routing junction of the brain. Once in the thalamus, the signal is sent out to 4 main areas (see graphic on next page as well please):

- 1. Somatosensory cortex, or viscerosensory** if the stimuli are from an organ, found in the parietal cortex. The signal is routed to the specific part of this area of the brain that relates to the location of where the pain originated (leg, arm, etc.). This is where you experience the location and quality of the pain.
- 2. Temporal cortex.** This happens when the pain goes on longer or is intense enough, and begins to imprint short term and eventually, (if really intense) long term, memory of the stimuli.
- 3. Limbic Area.** This is where we “experience” the pain – in our emotional brain. Need I say more?
- 4. Hypothalamus.** This is where things get interesting! The hypothalamus is our master gland involved in so many regulatory mechanisms in the body, ranging from temperature control and heart rate to hormonal responses, digestion and more.



So you can see that pain has the ability to create far-reaching effects on physical, emotional and biochemical functions of the body, including downstream

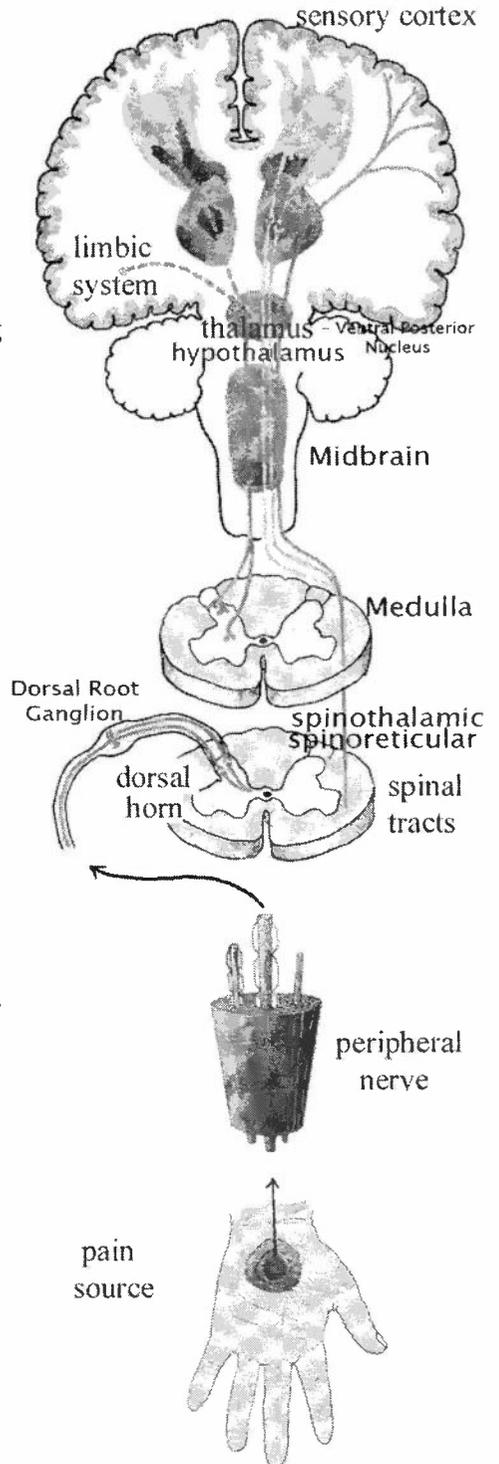
effects on your immune system, thyroid and adrenal function, breathing, heart function, muscular function, digestion...you get the idea!

But Wait, There's More!

There are secondary effects of the above neurological trip that are important to consider, not the least of which involves the cerebellum. For example, pain often causes us to alter how we move physically, especially when due to actual physical injury. But even slight pains, including visceral and other internal stimuli, can cause subtle shifts. This alters muscle balance (as Touch for Healthers, we know a little something about that!), which leads to compensation/adaptation. This compensation results in "uneven" firing of neurons to the cerebellum, affecting laterality in the body. For instance, if the range of motion (ROM) of a particular movement on one side of the body is restricted, the cerebellum on that side will not receive the same stimulation as the other side. This is actually a big deal, beyond just the restricted movement itself.

Due to this imbalance in laterality, the nerves associated with the restricted side fire less. This means that the signal going to the cerebellum is compromised and the areas of the cerebellum that are normally accustomed to receiving that signal now suffer from a lack of "frequency of firing." In the same way that a muscle atrophies when not stimulated, so it goes with nerves, as well. Nerves accustomed to receiving certain signals from the musculature that no longer do so, begin to atrophy and can eventually die. This means that one side of the cerebellum is getting stimulated more than the other. As the cerebellum is associated with proprioception and balance in the body – knowing where the body is in space and adapting accordingly – this can have a profound effect on these systems. An example of this is the Romberg Test – the ability to maintain balance while standing on one foot and then with eyes closed.

But the output of the cerebellum goes beyond just returning signal back to muscles and structure in the body – it also sends important output to lower brain structures that have much to do with the autonomic systems of the body, such as heart rate, vision and digestion. If the signal on one side is less than on the other, the output to the body's systems from that diminished side of the cerebellum is in turn diminished and may have deleterious effects further on down the road. By correcting this imbalance, a person might experience changes in areas of function they would never have suspected were being compromised by injury and pain in other areas of their body.



What Of It?

So you think you've healed. The pain is gone. You're walking/talking/gesturing/functioning normally again, without pain. It's all good, right?

Hmmmmmm....

Unfortunately, it's not always the case. Some of the neurological pathways described above don't necessarily turn off just because the stimulus has gone away. Cortical loops created by compensation/adaptation might still exist. The hypothalamus may still be getting aberrant signals from the thalamus. Even though "I'm not in pain," you wonder why you can't turn your head quite as far to the left as to the right. Why is that? (Keep in mind our discussion of what that also means to the cerebellum!).

At least you're no longer in pain. So you go along thinking you're OK. Later, when you start noticing that "my feet are always cold", or "I'm getting more colds than I used to", "my menstrual cycle seems to have shifted", "I just don't seem to have as much energy as I used to", or "my memory/cognitive abilities seem to be slipping these days", it never occurs that this may be due to the injuries and resultant pain, experienced in your life, even though the **experience** of that pain is long gone. After all, the injuries have "healed!" So what's going on? What can we do about it?

I'm glad you asked!

The Wonderful World of Kinesiology

Think about what we do in Touch for Health. Muscle balancing! The name itself invokes visions of the cerebellum!

Thinking about our above discussion, consider how many times you've tested muscles and found different results on each side of the body. Have you ever checked the range of motion of the same muscle on each side, for instance, the latissimus dorsi's and found them to be significantly different?

Think about the Ear Technique. What do we do? We have the person turn their head to one side and check an indicator muscle, then the other. How often have you noticed the difference between the two sides. After performing the ear rubbing correction, have you noticed that the ROM (Range of Motion) often evens out? Not to mention the change in pain often experienced by the person in simply turning their head after the correction.

Unfortunately, we also notice that after we make a correction, the next time we see someone, the imbalance has returned. So we keep at it.

Another technique we use in Touch for Health is the spindle cell technique. Usually we use it to identify if a muscle is over-energy, checking if it will unlock when it otherwise appears to be locked. This is a critical part of the Reactive Muscle technique that we all know and love. But we can also do the same thing with an **unlocking** muscle to see if it will respond. As many of you know, I am an advanced instructor of Applied Physiology (AP). In AP, we are always checking muscles using spindle cells to determine their neurological state, whether the muscle is locked or unlocked to begin with.

This process of checking muscles with using the spindle cell mechanism is also known as autogenic stimulation. It has direct pathways to the cerebellum. Aha!

An injury causes pain. That pain sends signals to the hypothalamus, where autonomic responses attempt to reduce the pain, but also may affect other systems in the body. Our limbic system is affected and we make emotional choices that might change how we go about doing things. We adapt to the pain by altering our motor skills; the adaptation affects the proprioceptive aspects of our muscles, which feeds

back to the cerebellum and alters laterality. This affects the signals generated by the cerebellum that go to other autonomic centers and affect important body functions. And on from there. Oy! Keep this in mind as we delve further into our topic.

Introduction, Part Deux

The worlds of Touch for Health and Applied Physiology both grew from techniques and understandings born in Applied Kinesiology. AK began as the research of George Goodheart, D.C., who first made the connection between muscles and organs/glands in the body and grew his research from there based on that concept. He surrounded himself with a group of like-minded chiropractors that assisted in the research process. This continued to grow the concepts of using muscle testing as a means of identifying imbalances in the body, and then using a variety of challenge techniques to see how the body responded.

As with many modalities in the healing arts, modalities borrow from each other and become integrated. For example, once Goodheart made the connection between muscles and organs, he then used Chapman's neurolymphatic reflexes and Bennett's neurovascular reflexes to "prove" the connection and to achieve therapeutic results.

The technique presented here has a similar history; in line with how Touch for Health became "Applied Kinesiology for the lay person," it offers a simple yet powerful means of helping those in need that can be performed by anyone.

Injury Recall Technique (IRT)

Injury Recall Technique was developed by podiatrist, Robert Crotty, D.P.M. and his colleague Gordon Bronston, D.P.M. It is based on what patterns they observed resulting from a history of injury, trauma and pain. Bronston referred to the "history of injury and trauma (as) the single most important aspect of a client's history."

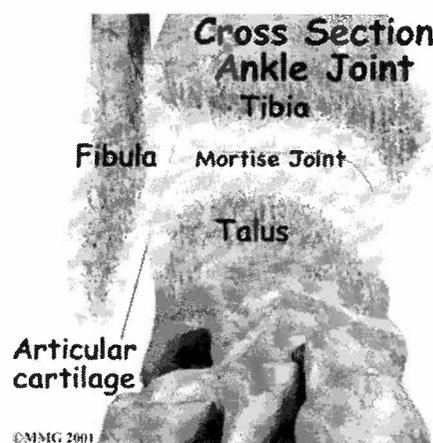
Crotty & Bronston referred to these patterns as a Muscle Chain Response. The original work charted the patterns such that when a patient explained about a particular injury, Crotty & Bronston could push on different spots of the body and know where the client would experience pain/discomfort. Then, after performing their technique, the previously tender spots would no longer be sensitive.

IRT made its way into Applied Kinesiology as a result of Dr. Walter Schmitt, D.C., who went to Dr. Bronston as a result of a foot injury. Having had extensive work done on his foot with minimal response prior to seeing Bronston, Schmitt came away so impressed by his own experience of the results of such a simple technique, that he brought it into the AK spectrum, adding his own twist to a portion of the process. The technique is currently featured in Dr. Schmitt's version of the AK repertoire called *Quintessential Applications – What To Do First, Next and Last*. IRT is what is done first, hands down, for everyone. Dr. Schmitt says that if he had only one technique that he could perform in his office, it would be Injury Recall Technique. As some of you may remember, the technique was presented at the Touch for Health conference several years ago by Sheldon Deal, D.C.

Consider what happens when an injury occurs. The nociceptive pathways stimulate a quick muscle response through the spinal cord – the withdrawal reflex. This also stimulates a sympathetic (fight or flight) response in the body. As certain muscles contract, others extend, the spine flexes (think of a cat when it becomes scared) and we are in a survival response pattern. The contraction pattern pulls our heels up – jamming the talus bone into the mortise joint – and extends the cervical spine, all as part of

the sympathetic response. They become associated with the pain and injury at the time it happens. (Interesting side note about the talus – it has no muscle attachments. It has some ligaments – which connect bone to bone – but no musculo-tendonous attachments. It forms the mortise joint of the ankle by articulating with the tibia and fibula, whose lateral “bulges” are the malleoli of the ankle.)

While the event of an injury passes, the body heals and pain dissipates, the memory of the sympathetic response can remain locked in via this pattern, along with the cortical loops and such discussed above. If you re-stimulate the area of injury, even years later, what happens to your indicator muscle? It unlocks! Not only that, it will often not respond to autogenic stimulation – the spindle cells. This becomes the indicator that the injury pattern still exists and the cerebellum is involved. Since any muscle in the body can be used as an indicator muscle, expressing the same spindle cell lack of response, this demonstrates the systemic nature of the imbalance, not just a problem in the local area.



Dr. Schmitt’s concept of the need for IRT is that if any muscle in the body, in the clear, is unlocked and does not respond to spindle cell manipulation (known in Applied Physiology as an under-facilitated muscle), then it indicates that an IRT injury pattern is present in the body, disrupting the normal autogenic functioning of the proprioceptive system of the spindle cell mechanism – and probably other systems, as well, given the relationship of the cerebellum to many other functions. This is indicative of the systemic nature and long term effects of injury in the body beyond simply the local area of the initial injury. **Based on the neurological principles discussed above, Schmitt claims that due to the cerebellar and cortical neurology related to why this happens and what changes as a result of doing IRT, other AK (and TFH) techniques such as Reactive Muscles and Strain/Counterstrain now become obsolete due to their spindle cell/autogenic stimulation relationships and the patterns being corrected by IRT.**

This is a pretty profound statement! The implications are astounding and far-reaching. Many of you know the power of the Reactive Muscle technique and how it can relieve pain and restore function. But you have to search it out. Imagine if doing IRT for a person’s injury history made the need for Reactive Muscles unnecessary and the profound changes that would result in short order!

This alone suggests why Dr. Schmitt values IRT so highly and insists that it be the first thing done in his Quintessential Applications protocol. If you do other balancing while these patterns still exist, there is a greater likelihood of the patterns returning or the body finding another way to express them. With all that is eliminated by doing this simple technique, you more quickly eradicate problems that you might otherwise spend more time on, and efficiently get to deeper problems that exist and need attention. As Dr. Schmitt likes to say, "If you don’t do IRT first, you’re painting over rust."

Conclusion

When I first learned about IRT many years ago, it seemed “too simple” for all the corrections it was being used for. I was skeptical. I played with it, but without a true understanding of why it worked, and how best to use it, I never fully embraced it. Now, with a much deeper understanding of the principles behind it and how best to apply them, I’ve adopted IRT as a first session protocol in my practice. Due to the vastly different system of Applied Physiology and its principles, I am seeing many new applications

for the use of IRT during the course of an AP session. Remarkable results are happening in much shorter time frames.

By using this technique to clear a person's injury history prior to proceeding with other balancing, many of a person's initial complaints clear quickly and root problems identified and addressed more efficiently. Reduction of pain, even pain that has existed for long periods of time, increased range of motion, balance of laterality, equilibrium and balance are commonly affected – sometimes amazingly so. Other organ and gland functions also improve. Yes, even emotional states can dramatically clear and cognitive issues improve!

It is my hope that with this more in depth understanding of the profound reach in the body of clearing a person's history of trauma, injury and pain, you will use Injury Recall Technique as a first line balancing mechanism. You may notice that you now cut to the core with your Touch for Health and other Energy Kinesiology processes, and achieve some impressive results before you even begin with them!

What follows is the procedure for using Injury Recall Technique to identify and balance a person's injury history in the body, as is recommended for a first session. Sometimes it can pop up along the way; at other times using the "hidden" IRT pattern check and correction – any time you find a muscle that is unlocked and will not respond to the spindle cells. As you use this technique in this manner and learn more about how and why it works, as well as, the results your clients experience, you too may find other applications for this incredibly simple yet profound tool.

If you have any stories to tell about your Injury Recall Technique results, please email them to me and I will forward them on to Dr. Schmitt. If you have any questions about the process, feel free to be in contact with me by email or phone (contact info below).

Thanks for your kind attention, and have fun using IRT!

IRT Procedure

1. Take a complete history of a person's injuries and traumas. This includes surgeries, broken bones, head trauma, impact trauma, sprains and strains, dental work, etc. Sometimes even the smallest of dings can set up an IRT pattern. Leave no stone unturned!
2. Pretests. Do a variety of range of motion (ROM) checks with your client: bend over to touch toes, side bend to see how far to each side a person reaches (and if it's symmetrical), head rotations, etc. Perform the Romberg Test – have client stand on one foot with eyes open, then close eyes, and note how long they can stand before losing balance. As well, determine if there are any painful areas in the body and identify the level of pain.
3. Monitor several TFH muscles (AP position 1). Choose from the upper and lower body: PMC, PMS, Latissimus Dorsi, Quads, Gluteus Medius and Tensor Fascia Lata are good candidates. If the client has any specific complaints, include muscles that might be related. This can be muscles where pain or restricted movement exists or muscles related to organs/glands/systems that have "issues".
4. If any of the muscles monitored unlock, spread the spindle cells to see if they respond. If the muscle does not lock when stimulated to do so, IRT is indicated.
5. Using one of the muscles that was determined to be UF (Under Facilitated) in step 3, have the client T/L (touch) an injury area and re-monitor the muscle. If the muscle now locks, there is an IRT pattern for that injury. Repeat this process for all the injured areas.

- a. You may need to wait for a second between tests to make sure the muscle resets to its UF state.
 - b. Sometimes a further stimulation of the area may be necessary when a client can't reach a particular area. The practitioner may then stimulate the area by rubbing or activating the origin/insertions of the involved muscle (not the IM, but the muscle involved in the injury) or simply the area over the injury itself.
 - c. Assess all injuries before making an IRT correction. Sometimes even one correction might affect the muscles you found to be unlocked and leave you with no indicator muscle to check with anymore!
6. Perform IRT for each of the injury areas that indicated in Step 5. There is a different method for injuries that occurred above the shoulders (this is the "twist" developed by Dr. Schmitt) and those that occurred from the shoulders down.
- a. IRT for head and neck injuries: Gently (but quickly) flex the atlanto-occipital joint (the connection between the uppermost cervical vertebra and the skull). Cradle the client's head as they continue to T/L the injury area and perform the motion of moving the head forward and down in a nodding motion, with the flexion centered around this C1/Occiput joint.
 - b. IRT for shoulders and below injuries: Gently (but quickly) open the mortise joint of the foot. The amount of actual movement is quite small. Put your thumb into the cavity at the anterior portion of the top of the foot and ankle joint (acupressure point St 41) and wrap your fingers around to the bottom of the foot. Dorsiflex the foot (pushing toes up and heel down) to open the space between the talus bone and the tibia (the mortise joint). Always perform the technique on the same side as the side of the injury. If a midline injury, then you may perform it on both feet.
7. Re-check the muscles from Step 2. If any are still UF (unlocking and not responding to spindle manipulation), there are still injury areas that have not been addressed. Pursue other possibilities that the client may have forgotten and repeat the procedure for those injured areas. It is possible that a muscle might still unlock, but if it responds to spindle cell manipulation, then it no longer indicates an IRT pattern (but still may need something else).
- a. It's possible that correcting even one injury might result in the muscles from Step 2 correcting. However, this doesn't necessarily mean there aren't any other injuries. It may result in a temporary scenario with the return of UF muscles in the clear in a future session – in which case you would have to repeat the process for other injuries. That is why it is important to assess all known injuries prior to making any corrections.
 - b. It is possible to have a "Hidden" IRT pattern, such that no UF response happens in the clear even though one might exist. To challenge for a hidden IRT pattern, do the following:
 - i. For suspected/hidden IRT patterns above the shoulders, have the client T/L (touch) the area. While maintaining that touch, ask the client to extend the neck by bending the head backwards (opposite to the correction movement). Check a clear IM. If it unlocks, it confirms the hidden IRT pattern. Correct as above in 6A, continuing to maintain contact as you do so.
 - ii. For suspected/hidden IRT patterns from the shoulder down, have client T/L the area. Gently but quickly compress ("jam") the mortis joint by pushing the heel up into the mortis joint (opposite to the correction movement). Check a clear IM. If it unlocks, it confirms the hidden IRT pattern. Correct as above in 6B while maintaining contact to the injury area.

8. Upon completion of all IRT balancing, have client perform all the pre-tests from Step 2. Note any differences, including increased ROM, evenness of laterality that didn't exist before, ability to do better with the Romberg Test, and reduction of pain.

References

I'd like to thank Dr. Wally Schmitt, D.C. and Dr. Kerry McCord, D. C., for their permission and trust in allowing me to present this work at the 2013 Touch for Health Conference. They have recently completed three webinars a month for over a year supporting the Quintessential Applications training course. There are a few free webinars available on YouTube; the others are available for purchase/subscription. If you wish to learn more about IRT and related techniques, I highly recommend you purchase the 1st set of webinars relating to Sessions 1-3 of the QA protocol, which includes IRT and other related techniques. These can be purchased for \$99, which includes a total of 10 one-hour long webinars. You may purchase these online at <http://quintessentialapplications.com/qawebinars.html>

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