



Making “Healthier” Potato Chip

Rajen. M

Holista Colltech Ltd

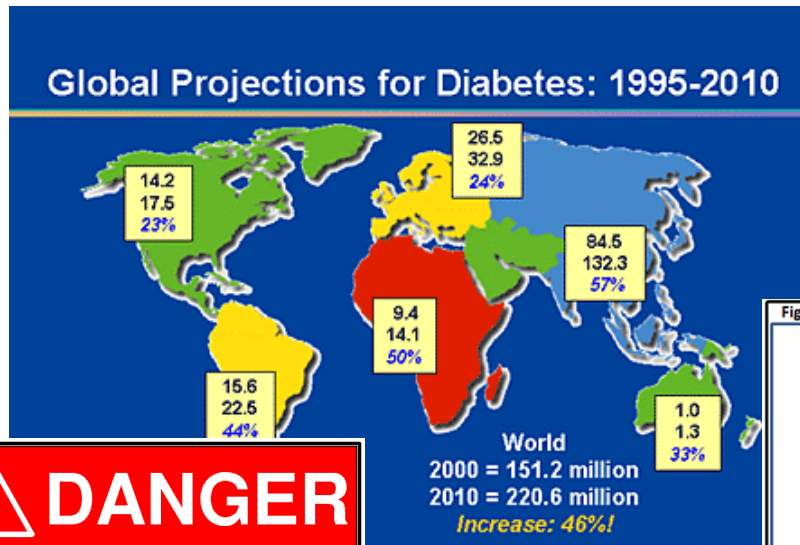
About HCT

- ASX listed
- 3 areas
 - food ingredients
 - ovine collagen
 - dietary supplements
- Patents and proprietary technologies (food ingredients)
 - low fat chip
 - low sodium salt
 - low GI bread
 - stevia taste masker

Australia's Role In Food Science

- Leading innovation in fast foods
- Leading research institutions
- New concepts
- Global opinion leaders
- Test bed for the global fast food industry

Obesity **IS** a Global Epidemic

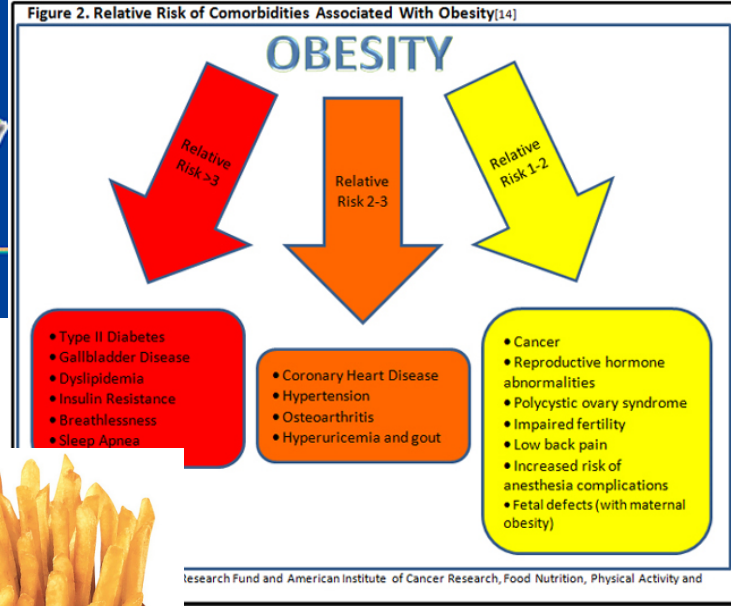
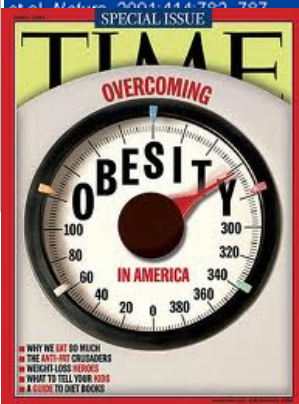
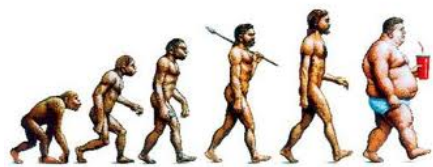


- *Starch*
- *Sugar*
- *Salt*



DANGER

FAST FOOD KILLS



The 4 S Tsunami

- Salt
- Sugar
- Saturated fat
- Starch

The Potato Chip

- Most visible
- Bulk of the meal
- Seen dripping with fat
- Salt added



Our Solution

- 39% reduction in fat content
- Pre-soak
- Asian botanicals
- GRAS
- Chips – texture are crispier, less oily, lower calorie
- Tested and validated in Oxford
- Patent Filed
 - Patent No: PI 2010004463
 - Date: 24/09/10



The Outcomes

- Joint collaboration with QSRH
- Trials with University of Western Australia
- Comparable to company data from elsewhere
- Agristo – “fat pull” in all test scores
- Ongoing with YUM



THE UNIVERSITY OF
WESTERN AUSTRALIA

Comparison of Fat in Treated & Untreated Potato Chips

LAB #	TREATMENT	BATCH	STARTING WEIGHT	FLASK BEGINNING WEIGHT	FLASK END WEIGHT	DIFFERENCE (g)	% FAT
20120808A	Treated	A	5.3925	74.3010	74.8770	0.5760	10.68%
20120808B	Untreated		5.0576	74.6240	75.5140	0.8900	17.60%
20120809A	Treated	B	6.8761	73.8540	74.5570	0.7030	10.22%
20120809B	Untreated		6.2027	71.9750	73.4200	1.4450	23.30%
20120809C	Treated	C	5.6273	74.1100	74.8140	0.7040	12.51%
20120809D	Untreated		5.2296	71.7600	73.3460	1.5860	30.33%
20120828A	Treated	D	4.649	74.6150	74.7700	0.1550	3.33%
20120828B	Untreated		5.3749	72.0660	72.4200	0.3540	6.59%
20120828D	Treated	E	4.4284	74.3970	74.5550	0.1580	3.57%
20120828E	Untreated		5.0932	74.2110	74.4690	0.2580	5.07%
20120829A	Treated	F	5.2323	74.6420	75.0420	0.4000	7.64%
20120829B	Untreated		5.1721	71.9270	72.6210	0.6940	13.42%
20120829D	Treated	G	5.9928	74.3310	74.8430	0.5120	8.54%
20120829E	Untreated		5.0978	74.1190	74.7770	0.6580	12.91%

Interpretation of data

- Without exception, the treated chips had reduced oil when compared with the untreated chips.
- The reduced oil range is between 30% to 59% when using HCT coating.

BATCHES	PERCENTAGE DIFFERENCE
A	39%
B	56%
C	59%
D	49%
E	30%
F	43%
G	34%

Our Technology

- Reducing “fat pull” into a potato chip by 20%
- All natural ingredients
- 2 stage pre-soak
- Can blend into existing process
- Patented process

Technology Proof

- University of Oxford
- University of Western Australia
- Agristo
- YUM! Foods

Ingredients

- Water soluble
- Wash easily
- No stain

The Ingredients

- Okra
- Pectin
- Gellan Gum
- Calcium chloride
- Citric Acid

The Process

- 2 stage soak
- Added to the following stages:
 - blanching
 - rinse
 - sugar plume
 - coating/ dipping and buttering
- Very minimal infrastructure change of plant except for a mixer
- No change in temperature and time exposure of existing process

The Evidence

- Oxford
- University of Western Australia
- Agristo
- YUM!