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Simone Hörlein

Fit oder krank durch Milch?

Ein Lebensmittel in der Diskussion

Sie enthalten wertvolle Proteine, viele wichtige Vitamine und sind hinsichtlich ihrer Kalziummenge von kaum einem anderen Lebensmittel zu schlagen. Die Rede ist von Milch und Milcherzeugnissen. Diese ernährungsphysiologisch wertvollen Grundnahrungsmittel sind seit fast 8000 Jahren wichtiger Bestandteil der menschlichen Ernährung und haben unserer Spezies einen enormen Entwicklungsschub ermöglicht. In jüngster Zeit häufen sich Vorwürfe, die Milch mit diversen Krankheiten in Verbindung bringen und sogar vor ihrem Verzehr warnen. Was steckt hinter dieser emotional geführten Diskussion – Eigeninteressen, clevere Marketingstrategien oder vielleicht doch wissenschaftliche Fakten?

Das Kompetenzzentrum für Ernährung (KErn) hat sich mit Unterstützung des Max Rubner-Instituts einen Überblick über die Behauptungen und die wissenschaftliche Datenlage verschafft.

These 1: Milch erhöht das Risiko für Herz-Kreislauf-Erkrankungen.

Gesättigte Fettsäuren gehen tatsächlich mit einem erhöhten Erkrankungsrisiko für Herz-Kreislauf-Erkrankungen (HKE) einher, da sie das LDL-Cholesterin im Blut erhöhen. Da Männer rund 22 und

Frauen etwa 26 Prozent aller gesättigten Fette über Milch und Milchprodukte aufnehmen (MR 2012), wurde der Verzehr fettreicher Milcherzeugnisse auch mit einem erhöhten Krankheitsrisiko in Verbindung gebracht. Diese Einschätzung ist heute nicht mehr zeitgemäß, da die physiologische Wirkung gesättigter Fette immer unter Berücksichtigung der jeweiligen Lebensmittelmatrix erfolgen muss. Neuere Studien ermöglichen eine aktualisierte Bewertung des Milchfettes. Demnach führt der Verzehr von Milch und Milchprodukten nicht zu einem erhöhten Risiko für HKE, es gibt eher Hinweise auf eine inverse Assoziation (Elwood 2010, Gibson 2009, Patterson 2013, Abreu 2014, Bel-Serrat 2013).

These 2: Milch macht dick und erhöht das Risiko für Diabetes.

Adipositas ist weltweit ein ernstzunehmendes Problem (World Health Organization 2014) und ein Risikofaktor für Typ-2-Diabetes sowie andere Stoffwechselerkrankungen. Seriöse Studien zeigen aktuell keinen konsistenten Zusammenhang zwischen Milchverzehr und den genannten Krankheitsbildern (Gao 2013, Elwood 2010, Tong 2011, Aune 2013, Louie 2011). Jüngere Analysen weisen auf eine inverse Assoziation hin (Mozaffarian 2013, Fumeron 2011, Zong 2014, O'Connor 2014). In verschie-

denen Interventionsstudien führte vermehrter Verzehr von Milch-erzeugnissen nicht zu negativen Auswirkungen auf das Körpergewicht. Bei gleichzeitiger Energierestriktion ließ sich ein Rückgang von Körpergewicht und Körperfettmasse beobachten (Abargouei 2012, Chen 2012).

These 3: Milch führt zu Verschleimung.

Die Schleimbildung ist ein elementarer Prozess der Schleimhäute und für deren Funktion wichtig. Kommt Milch mit dem Speichel in Kontakt, flocken Milchproteine aus und die Viskosität des Speichels erhöht sich. Dies könnte man als vermehrte Schleimbildung interpretieren. Im 12. Jahrhundert empfahlen Ärzte Asthma-Patienten auf Milchprodukte zu verzichten. Dieser Mythos ist in nichtwissenschaftlichen Publikationen und Ernährungsschriften noch immer präsent. Heilpraktiker und die chinesische Medizin leisten seiner Verbreitung weiterhin Vorschub (Thiara 2012), obwohl eine in den 1990er-Jahren durchgeführte randomisierte Doppelblindstudie diese Legende längst widerlegt hat. Demnach unterscheiden sich Sojamilch und Kuhmilch hinsichtlich der empfundenen Schleimbildung nicht signifikant (Wanders 2011). Auch die Verschlechterung von Erkältungs- und Schnupfsymptomen ließ sich in diversen Studien nicht bestätigen (Pinnock 1990, Pinnock 1993, Arney 1993).

These 4: Milch fördert Osteoporose.

Zahlreiche Studien bestätigen eine Erhöhung der Knochenmasse durch Milchverzehr (Budek 2007, Huncharek 2008, Moore 2008, Kalkwarf 2003). Das komplexe Krankheitsbild der Osteoporose kann Kalzium (aus Milch, Gemüse oder Mineralwasser) weder verhindern noch fördern (Bischoff-Ferrari 2011, Kanis 2005, Feskanich 2014, Darling 2009). Dass Osteoporose in Ländern mit höherem Milchkonsum häufiger auftritt als in Ländern ohne Milchverzehr hat vielfältige Gründe. Der Milchverzehr an sich ist kein Grund. Osteoporose tritt – von Ausnahmen abgesehen – vor allem im Alter auf. Auf Grund der höheren Lebenserwartung ist das Krankheitsbild in westlichen Nationen weiter verbreitet. Daneben spielen Faktoren wie Körpergröße, Gewicht, Muskelmasse, geographische Lage eines Landes (endogene Vitamin-D-Synthese) sowie die Ethnizität eine Rolle (Bonjour 2013, Rizzoli 2014). Asiaten zum Beispiel haben eine andere Skelett-Geometrie, die das Risiko für Hüftfrakturen senkt, das Risiko für Brüche der Wirbelsäule jedoch erhöht (Heaney 2002). Afroamerikaner weisen eine veränderte Mikroarchitektur von Oberschenkelknochen und Speiche auf, was trotz niedrigerer Kalzium-Zufuhr zu einem geringeren Frakturrisiko beiträgt (Putman 2013).

These 5: Milch führt zu Übersäuerung des Körpers.

Das Gerücht, dass Milch zur Übersäuerung des Organismus beiträgt, hält sich hartnäckig. Man begründet es mit zwei bereits widerlegten Argumenten: mit dem durch Lebensmittel beeinflussbaren Säuren-Basen-Gleichgewicht im Körper sowie mit den in Milch in größeren Mengen vorhandenen Phosphoproteinen und schwefeligen Aminosäuren (Calvez 2012, Bonjour 2013). Zwar führt ein zu hoher Proteinverzehr zu einer verringerten Kalzium-

Rückresorption in der Niere und in der Folge zu einer erhöhten Kalzium-Ausscheidung im Urin (Calvez 2012, Fenton 2011, Thorpe 2011). Entscheidend ist jedoch die Differenz zwischen Kalzium-Aufnahme über die Nahrung und Kalzium-Ausscheidung. Die erhöhte Kalzium-Ausscheidung im Urin geht mit einer erhöhten Kalzium-Absorption im Darm oder mit einer reduzierten Kalzium-Ausscheidung über den Stuhl einher. Die Kalzium-Bilanz insgesamt bleibt ausgeglichen (Calvez 2012, Thorpe 2011, Remer 2014). Zahlreiche neuere Studien bestätigen, dass Nahrungsproteine die Kalzium-Bilanz nicht negativ beeinflussen (Darling 2009, Beasley 2014). Eine aktuelle prospektive Studie aus den USA (Women’s Health Initiative) hat 144.589 Frauen über 50 Jahre mindestens 13 Jahre lang beobachtet und fand eine verbesserte Knochendichte bei höherer Proteinzufuhr.

These 6: Milch führt zu Akne.

In Europa zeigen bis zu 80 Prozent der Jugendlichen Symptome von Akne (Rzany 2006, Zubair 2011). Das Auftreten von Akne wird einerseits mit dem hohen glykämischen Index bestimmter Lebensmittel, andererseits mit einer hohen Aufnahme von Milch und Milchprodukten in Verbindung gebracht (Melnik 2012, Spencer 2009, Veith 2011). Als auslösende Inhaltsstoffe in Milch gelten Hormone sowie insulinähnliche Wachstumsfaktoren (Melnik

Übersicht 1: Zusammenhang zwischen dem Verzehr von Milch und Milchprodukten und Krankheitsrisiken (Kern 2014)

Krankheiten	Inverse Assoziation	Positive Assoziation	Keine Assoziation
Kardiovaskuläre Erkrankungen	X		
Herz-Kreislauf-Erkrankungen ¹			X
Schlaganfall ¹			X
Bluthochdruck	X		
Diabetes mellitus Typ 2	X		
Metabolisches Syndrom ¹			X
Adipositas			X
Krebs	Dickdarm X Brustkrebs (1. Hinweise) X	Prostata X	Übrige Organe X
Knochendichte		X	
Osteoporose			X
Verschleimung			X
Akne ¹			X
Übersäuerung			X

¹Bei diesen Krankheiten ist die wissenschaftliche Datenlage noch nicht hinreichend geklärt, aktuelle Studien sprechen bisher gegen eine Risikoerhöhung.

2009). Trotz der schlüssigen Hypothesen zu dieser Thematik fehlen bis heute kontrollierte Studien zum kausalen Zusammenhang zwischen dem Verzehr von Milch und Milchprodukten und dem Auftreten von Akne (Bhate 2014).

These 7: Kuhmilch ist artfremde Milch. Der Mensch verträgt sie nicht.

Dass Kuhmilch an das Kalb adaptiert sei und der Mensch sie als artfremde Milch nicht vertrage, ist ein weit verbreitetes Argument der Milchgegner. In letzter Konsequenz bedeutet es, dass der Mensch kaum Lebensmittel zur Verfügung hätte. Denn auch Früchte dienen primär zur Fortpflanzung von Bäumen und Sträuchern und Körner zur Verbreitung von Getreide. Keine Pflanze und kein Tier entstanden primär zum Verzehr des Menschen. Bis zu 15 Prozent der deutschen Bevölkerung vertragen Milch nicht gut, da sie an einer Laktoseintoleranz leiden. Diese Intoleranz geht auf einen Mangel oder eine geringere Aktivität des Milchzucker-spaltenden Enzyms Laktase zurück und hat nichts mit einer potenziell gefährlichen Milchproteinallergie zu tun, die eher selten vorkommt.

Fazit

Trotz zahlreicher Studien, die die Vorteile des Milchverzehrs bestätigen, wird es stets auch Kritiker und Andersdenkende geben. Milch und Milcherzeugnisse und ihre Bestandteile sind aus aktueller wissenschaftlicher Sicht nährstoffreiche und ernährungsphysiologisch wertvolle Lebensmittel, die Bestandteil einer ausgewogenen und abwechslungsreichen Ernährung sein sollten. Zahlreiche Vorwürfe gegen Milch sind wissenschaftlich nicht gesichert und wurden in jüngster Zeit revidiert (vgl. Literaturanhang).

Die Autorin

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